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—
*Also
Novelets
By*

**ARTHUR
C. CLARKE**

•
**JOHN D.
MAC DONALD**

•
**A. E.
VAN VOGT**

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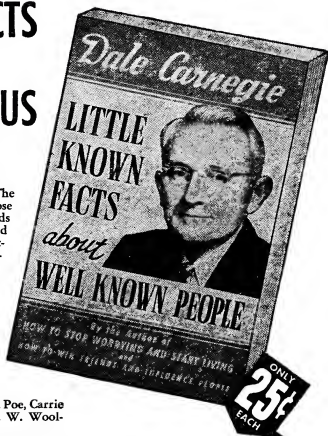
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NOT long ago a scientific announcement came out of England which may well mark a milestone on the path to a solution of the overwhelming complexities which the headlong rush of modern development and specialization have inflicted upon our men of science.

We have more than once remarked upon the apparently insoluble mass of learning which must be absorbed and mastered by man or woman who wishes to be more than a mere specialist within the limits of a single scientific field. No less an authority than Dr. Vannevar Bush of A-bomb fame has stated in print that he considers this overgreat wealth of technical and theoretical knowledge to be the most serious restricting agency upon free-wheeling general scientific growth.

Now Dr. Max Born, a famous pre-Nazi German and current British physicist, head of the department of mathematical physics at the University of Edinburgh, has collaborated with Dr. H. S. Green upon a potential simplification of theory which could very well shine a light upon the route to freedom from the fetters of necessarily limited knowledge.

Universal Laws

It is nothing less than a theory which applies the same physical rules not only to the subatomic but to the macrocosmic worlds. In other words, it is an effort to prove the existence of universal laws which apply not only to such minutiae as mesons, protons and electrons but to the stars, comets and planets as well.

Drs. Born and Green have predicated their discovery on lengthy experimental work toward solving the ultimate laws of physics, working by Lagrangian equations

which state that these laws should be symmetric in space-time as well as in momentum energy. In formulating their theorems these scientists discovered definite correspondence with certain recent experiments upon mesons, most recently discovered atomic factors.

In short, if their theory is borne out, it might conceivably in the fairly near future be possible to study the atoms via telescopes and the behavior of the stars via electron microscopes. It would mean the union of two hitherto definitely separated and individually complicated branches of science.

Curiously or otherwise, the idea that atomic systems might conceivably be solar and galactic systems in miniature is one that occurred to writers of science fiction some decades ago—almost as soon as discovery of the atom was announced. But for very good reasons, the sterner realists of science were unable to accept any such glib theorization.

The Dream May Come True

Now, with greater knowledge and in ways far more complex than those conceived by stiff-men of years long gone, it appears as if the dream may in some part be true. It will be something for all of us to keep a close eye on.

Certainly this is not the first step toward simplification of our currently far-too-complex systems of science. The great Dr. Albert Einstein has long since pioneered in this direction. His case, or rather that of his work, may well be symbolic of what could grow into a mighty trend.

During the years when his announcement of the fourth dimension and the theories of relativity, curved light and the

finite universe were the subjects of Sunday supplement pseudo-science almost weekly, the very name of Einstein was held to be synonymous with inhuman complexity.

It was many times stated that with almost smug authority that no more than a half dozen or so living men were capable of understanding just what the great doctor was driving at. Those who professed to understand him were generally regarded as cranks or charlatans—and a goodly body of scientific as well as popular opinion professed to believe that Dr. Einstein himself did not know exactly what he meant.

Nowadays Einstein's theories, early and late, are taught in our colleges. Inability to understand them is no longer held to be a mark of normalcy. And the great doctor himself, about a decade ago, came forward with a theory which has done much toward simplification through unity of two branches of science regarded, until then, as utterly separated—as much so as astronomy and nuclear-physics, which Drs. Born and Green hope to unite.

Einstein attempted and apparently proved by mathematical theorem that the forces of electro-magnetism and gravity were virtually similar. And proof has since been established to present-day scientific satisfaction via field experimentation.

Perhaps, in days to come, other scientists will prove that the various forces which make our universe possible—from meson to galaxy—are not only closely related but are part of a single basic universal law. Furthermore, through the miasma of complexities that constitute much of modern science and not only force scientific thought into limited channels but baffle the general public, may come the discovery that nature is not so fundamentally complex after all.

Science and Philosophy

If and when such advanced understanding is reached, science in its purest form will find itself more closely than ever allied to philosophy—which is the most free-wheeling thought of all except when limited by human bigotry. And the effect of such a great light of scientific discovery should and could have the effect of stripping such bigotry from the human mind like the outer leaves of an artichoke.

When that day comes, Man will be well on the road toward understanding of the

(Continued on Page 145)

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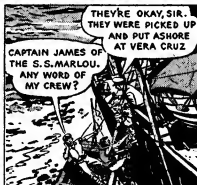
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FURY **from Lilliput**

CHAPTER I

Down to Size

IT WAS pitch-dark when Larry Hart reached shore and he was exhausted. He barely managed to crawl through the surf that boomed a hundred yards to his left—and stopped—at an indefinite distance to his right.

He got out of the last lapping tongues of the water on his hands and knees, panting, and crawled another fifty feet

beneath the stars. Then he collapsed. His heart pounded horribly. His cruiser, the *Bazooka III*, had gone down almost three miles offshore. The swim to land had been a terrific battle.

He lay still, feeling the anguish of pure exhaustion in his limbs. There were sudden cramps in his stomach. The muscles seemed knotted into hard

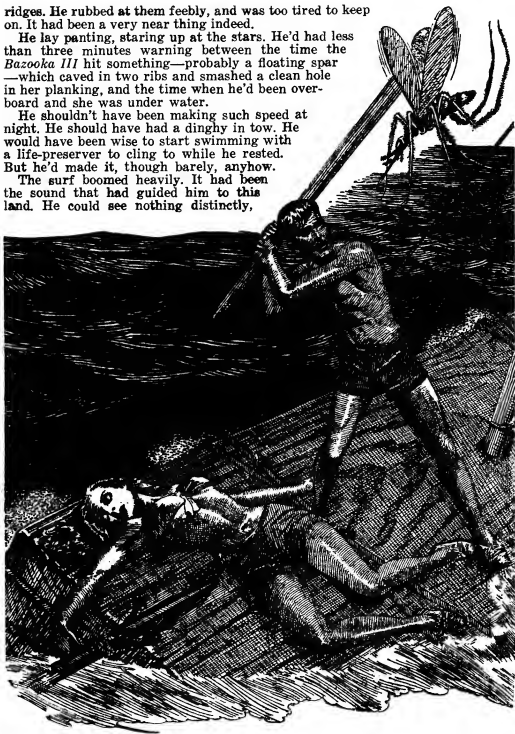
A Trio Descends to Smallness but Finds Out

ridges. He rubbed at them feebly, and was too tired to keep on. It had been a very near thing indeed.

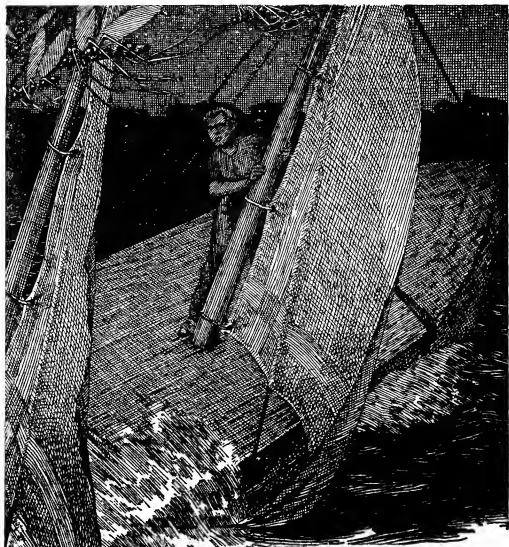
He lay panting, staring up at the stars. He'd had less than three minutes warning between the time the *Bazooka III* hit something—probably a floating spar—which caved in two ribs and smashed a clean hole in her planking, and the time when he'd been overboard and she was under water.

He shouldn't have been making such speed at night. He should have had a dinghy in tow. He would have been wise to start swimming with a life-preserver to cling to while he rested. But he'd made it, though barely, anyhow.

The surf boomed heavily. It had been the sound that had guided him to this land. He could see nothing distinctly,



Strength Is Not Always a Matter of Size!



Larry snatched a reed and
laid about him furiously

though he heard and could see treetops silhouetted against the sky. But presently he heard a cat.

It snarled at something, the something snarled back and spat to boot, and a cat-fight took place among the trees a hundred yards away. Then he felt something moving nearby and a small dark shape which moved with feline grace went bounding over the sand.

Then there was another and, as he strained his eyes, staring blankly, he saw yet others. There were five—six—a dozen cats on the beach. He heard others in the woods. He heard meowings and yowlings and another

seeming battle royal a long distance off. This place was a very paradise of cats.

But cats weren't dangerous. And suddenly, as if the fixing of his mind on something other than his own near escape from death unlocked his tenseness, he relaxed and was instantly asleep.

The surf still boomed when he woke and the sun was in his eyes. He was stiff and sore and ravenously hungry. He sat up and cats paused in their prowling and looked at him. He had never liked cats. These were lean, starveling brutes. There were at least thirty within view on a small section of beach.

One of them saw something in the waves. It plunged actually into the foam-edged sheet of racing water to pounce upon a noisome small dead fish, floating there. The cat gobbled at it, all normal feline daintiness forgotten. In an instant other cats leaped to share the morsel.

A horrible *mêlée* took place before Larry's eyes. Cats seemed to streak from everywhere. The one putrid small fish drew forty—fifty—it seemed hundreds of cats. Larry was sickened as they piled up in a squalling, spitting heap over the first discoverer of the flotsam.

HE GOT painfully to his feet. He set out to explore on aching legs. The surf to seaward was loud but it ended a hundred yards to southward. It went much farther to the north, but it curved back there, too, and ended. He had obviously landed upon an island. He squinted and could see the mainland on beyond, still a long way away. He could not conceivably have made it last night.

He was very hungry indeed but it did not seem likely that there would be human inhabitants on a small island off the coast on which there were so many starveling cats. There would be little chance for food here. Certainly the cats would have taken care of any bird life and chances were not too good for any other edible stuff.

He was blankly astonished then when, only two hundred yards from his landing-place, he saw a perfectly commonplace summer cottage standing in a moderately well-kept patch of lawn, looking rather complacently toward the sea.

It was a very normal cottage indeed, a story-and-a-half high, with curtains in

the windows and a small chicken-run in the back. He saw no chickens but there were many white feathers on the ground inside the netting. The house was decently painted and the grass had been recently cut and a brief woman's bathing suit hung quite dry on a line behind it. Larry caught his breath in relief. He would find something to eat here anyhow.

He knocked decorously on the door. No answer. It was too early in the morning, of course. He knocked more loudly. The only reply was silence. He shouted and cats came and stared at him unwinkingly, and then moved away. He bellowed. No answer.

He went around to the back. There was a screened-in back porch. An inner door leading into the house stood ajar. Then he saw a path leading away toward the other side of the island. He shouted once more and then disconsolately followed the path.

The inhabitants of the cottage, he decided, must already be out fishing. Yes—there was a small wharf on the side of the island toward the mainland and therefore sheltered from the sea. A rowboat, well tethered, floated there.

Larry swept the visible expanse of water for another boat in which the house's occupants might be fishing. He saw no sign of one. There was another smaller island a quarter-mile inshore. They might be fishing on the far side of that. He bellowed across the water and there was no answer.

He estimated that the mainland was four miles away. He turned and went doggedly back to the house. He shouted yet again and then opened the screen door. A lean gray cat darted between his legs and was inside before he could stop it. He went into the kitchen and called—and then ravenously looked for food.

There was no ice in the icebox and its contents smelled deplorably when he opened the door. He shut it quickly. There was bread in the bread-box. It was heavily moulded. He was taken aback but he looked for canned food. He found it.

For breakfast he ate a can of tomatoes, cold, and a can of corned beef. There was a hand-pump by the sink—evidently the cottage was without electricity—and the first strokes produced a rusty fluid. Presently it was clear. He slaked his thirst.

Things did not look right. He mulled over the spoiled food and other matters. He went deeper into the house. The dining-room table was still set for a meal and there was food in the two plates. It was spoiled and dried up.

There were two coffee-cups. One had a dried brown stain in the bottom and the other still contained a few drops of thick syrupy stuff. The house had been empty for days, then, but not for weeks.

He went on. There was a bedroom with a bed which had been slept in. The covers had been turned down in housewifely fashion to air before being remade. Another bedroom was prepared for later attention. There had been eggs on the dining-room table. The people of this cottage had left after breakfast.

There was, however, no consistency between the essentially tidy trick of turning down beds for airing and the leaving of food on the table to dry up and rot. The people who lived here during the summer—it was plainly no year-round habitation—had not planned to stay away when they left. Some sudden call or other had made them leave and they simply hadn't come back.

LARRY felt a chilly sensation at the back of his neck. He went into the living room. It was lined with books, mostly on mathematical subjects, with a sprinkling of physics, wave-mechanics and quantum tomes. Everything looked exactly like an occupied house whose inhabitants had stepped out moments before. Only the ice-box and the dining-table proved that it had been days—and that they hadn't returned.

He saw a girl's picture on the desk—A very pretty girl. She smiled at the camera. Larry felt that he'd like to know her. There was a second framed photograph of an older woman. This older woman was dressed very plainly and her hair was not too artistically done. She had a pleasant face, and Larry had a feeling that he'd seen her picture somewhere before.

And then, on one end of the desk, there was a varnished case with an oblong whitish opening and various knobs in the front. It looked rather like a table-model battery television set, except for the fact that there weren't any battery television sets. It looked like a battery-operated radio with a television screen attached. Larry moved closer.

He felt himself falling. He felt an enormous giddiness, so overwhelming that he instinctively flung out his hands to catch himself by the desk-top. But his hands swept through emptiness. He was falling! He had an instant in which to savor panic and a sort of explosive nausea.

Then he hit. The surface he struck was incredibly resilient. He bounced a little. He was jolted but hardly hurt. He lay still, his eyes tightly shut because of giddiness and nausea and because he felt that he still tumbled headlong somewhere, though he had overtaken something else which continued to fall as he did. He waited for the impact when he and this springy stuff hit bottom. It would be a terrific crash. . . .

But the crash did not come. Seconds passed—more seconds. He opened his eyes. His environment was utterly unfamiliar. He lay upon a mass of matted wiry stuff, rather like thin rattan colored blue. It reached away some forty or fifty feet in each direction and there were four huge columns nearby, very peculiarly shaped and with yard-high clumsy wheels at their bottoms. They reached up for thirty feet or more to support an enigmatic platform of some sort, backed up against a clifflike wall.

He still felt that he was falling. But now, suddenly, he heard noises about him. He knew they had been going on before but he only now realized their strangeness. There were hootings and bellowings and dronings in all keys and every possible volume. Such a tumult could come only in an unimaginable jungle. Then he felt a deep-toned vibration which should have been a sound and was not.

It was in the air and underfoot as well. It was more like the growling roar of a train than anything else, save that it surged up from nothingness, reached its peak and passed away again, more swiftly than any train could possibly pass any given spot. And there was no sound connected with it. It was merely a quivering of all this universe.

Somehow that recurrent rhythm and the bedlam of hootings and whistlings contradicted the sensation of falling. This place, of course, was impossible. The continued sensation of falling—or of incredible lightness—was preposterous. This more than foot thick mat of rattan . . .

He got up, staggering. He seemed almost weightless. He had surely not more than an infinitesimal fraction of his normal weight. When he tried to walk he progressed in a series of crazy lurching leaps.

His fourth step was an overbalance and he fell on the rattan—but again without hurting himself. He got up doggedly. He was so completely stunned by his unimaginable surroundings that he found himself concentrating ridiculously on the mere problem of locomotion.

Suddenly he solved it. One's progress was like motion on a trampoline, only, instead of counting upon the resilience of a spring-stretched canvas, the resilience was in one's own muscles. One could walk only in a series of giant bounces, each of which was a leap taken with no perceptible effort. A normal step sent one four or five feet high.

A leap—he gravely essayed a jump. He jumped very tentatively but he went up twenty feet. The impact of his landing was trivial. He found himself estimating that here—wherever here was—he could jump at least fifty feet straight up. As if on the moon.

But where was he? He was in a vast cavern to be sure. The ceiling was eight or ten stories high. There were two huge rectangular spaces through which light streamed. Monstrous shadows—so huge that they could not be identified—danced upon the clifflike sidewall of this colossal enclosure.

He found himself near the edge of the rattan-like mat. On the strangely irregular floor he saw something like a spear. He went over to it in his newly-discovered bouncing gait. It was close to eight feet long with a sharp oddly-curved metal spearhead. It was bulky, too—almost six inches through behind the spearhead, as if weight were massed there to fit it for use also as a gigantic club.

He found himself doubting the practicality of so massive a spear but he stirred it and found it extraordinarily easy to lift. The wood—no, it was not wood. It was some plastic of dark color. The material was remarkably light.

He picked it up and held it. Those hootings and howlings beyond this cave suggested the need of a weapon of some sort. He set out grimly to explore the place in which he found himself. At the

moment, he was astonished past the power to be astonished any more.

This all felt like a dream but when he pinched himself it hurt. The only possible course was to treat it as one treats an illusion, with a fictitious matter-of-factness and no pretense either of belief or disbelief.

THERE was a monstrous square-topped arch, leading from this to another cavern. He bounced over a foot-high barrier and was in another cave. Here were more strange columns, supporting platforms of various heights from four to six times his own.

There seemed no reason for the platforms or for their placing. Then he saw an object on his own level some seventy or eighty feet away. He advanced to it, bounding in an essentially dreamlike fashion.

It was a gigantic jar of six-inch-thick glass with a coarsely perforated cover of half-inch white plastic. The plastic had been hacked away. A mass of irregularly-shaped blackish granules had been allowed to spill out on the floor and most of them gathered up and carried away. In some indefinable fashion he knew that a human being like himself had done it.

There was, then, at least one other human in this place. He nodded to himself. From the instant of that extraordinary nausea and dizziness which had meant his translation into this place no more than ten minutes of time had passed. He still did not believe in what was happening. It was necessary not to believe in it or he would have known that he was insane. The way he had to walk was impossible. Everything was impossible. But he would hunt up the human who had cut away this perforated plastic cover and gathered up the blackish granules and very gravely ask for an explanation.

Then he saw a movement out of the corner of his eye. He whirled to face it.

There was an animal in the cavern with him. It was a monstrous nightmarish creature, a carnivore of the cat family which was literally the size of an elephant. It was at least eighteen feet long from nose to tail-tip. Even crouched for a spring as it was, it was taller at the shoulder than he. He regarded it with almost drunken gravity.

"Sabertooth tiger," he thought. "A



There was an animal in the cavern with him—a monstrous, nightmarish creature, a carnivore of the cat family.

very large specimen. Then with the same dream-like detachment, "They should be yellow-striped. This one is simply blotchy gray."

The thing crept toward him, stalking him. Its tail swept from side to side. Eyes glowing, it moved in giant ten-foot strides.

"It looks," he reflected, "exactly like a cat stalking a bird."

He did not believe in it. This had to be a dream! It was sixty feet away—fifty.

He reflected with insane coolness, "Maybe I'm dreaming. Anyhow I've got to fight it with this spear. Then maybe I'll wake up. African natives plant a spear and let a lion leap on it. This spear isn't long enough. Those forepaws would reach me anyhow. If it jumps it's going to be too bad. The trick will be to get inside its leap."

He began to run toward it, swinging the unhandy, ill-balanced spear at the ready. The creature snarled at him and the noise was a deep incredible roar. He charged. He realized with annoyance—it was of a piece with the nightmare-like aspect of everything else in this experience—that the spearhead was not long enough or even sharp enough save at its point to dig deeply into the animal's flesh.

The thing ceased its advance, glaring at him balefully. To have prey run toward it was unusual. It spat at him exactly like a cat. But he could see that it was half-starved. He lunged furiously.

The sharp spear-point went deep into the black, wrinkled skin of its nose. He threw his whole weight upon the spear to drive it home.

The spear was torn from his grasp as the thing emitted a horrible cry and sprang convulsively away. It struck frenziedly at the spear, still clinging to its flesh. The spear went flying through the air and clattered to the floor of the cavern. The thing shrieked again and fled.

He picked up the spear and went after it. Yet another cavern—beyond it vast openness. He went bouncing gravely in pursuit, each step a hop some four feet into the air, like someone walking on a trampoline of infinite extent. The creature was racing crazily back and forth along a five-foot barrier from which half-inch iron bars rose up toward the roof eighty feet overhead.

He advanced toward it. Again it roared and spat at him. He kept on in the wholly lunatic courage of a dream. And then it dodged past him and fled back into the caverns from which he had come.

Larry grounded his spear. He looked out through the half-inch bars at the open space beyond. There was sky overhead. There were clouds in it. The sky was blue. There were trees—three hundred feet high with colossal leaves. And there were more creatures like the one he had just defeated, dozens of them, monsters.

Larry's throat worked. Hysteria beat at him. He clenched his hands and shook his spear and wanted to shriek and batter insanely at something. He could not deceive himself any longer. He knew where he was. It was impossible. He knew what had happened to him. That was impossible, too.

He was on the back porch of the cottage he had entered perhaps half an hour before. The creature he had fought was the gray cat which then had darted between his legs before he could stop it. The spear he had fought with was a hard rubber penholder with a penpoint in it for spearhead.

Larry was a shade under six inches tall.

CHAPTER II

Scat!

HE SPENT that day and one night in the house. At first, with due caution about the cat, he set desperately about finding out how the impossible thing had happened. Whatever its cause, it had taken place in front of the box on the desk in the living-room.

That box looked like a table television set but when he approached it he had felt a horrible dizziness, a wrenching nausea and a feeling that he was falling. He had landed on a tufted rug whose individual fibres seemed in his new size like strands of rattan.

His size, too, accounted for the extraordinary sounds that he heard. The parts of his hearing-apparatus which created standing-waves and consequent nerve-impulses of the pitch of sound

had grown so small that all normal sounds had moved octaves toward the bass. The relation of vibration-frequency to the sensation of pitch is an accident of the ear's construction.

Children, whose ears are small, hear sounds—such as the cries of bats—which adults cannot perceive. Larry's ears were so minute that the standing-waves which formed and gave the sensation of pitch were far removed from those which gave that same sensation ordinarily.

So the rumbling roar of surf was no longer a sound to his ears in their new size. It was below audibility. The snarling of a cat was a deep-toned roar. And the hootings and bellowings in various keys which came from out-of-doors were sounds that a normal ear could not hear.

To Larry now a bat's squeak would be perfectly audible and not especially high-pitched. A supersonic dog-whistle would be wholly hearable. He heard readily sounds which would be imperceptible to anyone else—and the booming surf made merely a vast rhythmic vibration which shook the ground and beat upon his chest but was not sound at all.

His feeling of weightlessness came from the same basic cause—his ensmallment. The strength of a muscle varies as its cross-sectional area—as the square of the diameter. But the volume of a solid object varies by the third power—as the cube of its size.

If his body was no more dense than before and was one-tenth its size its volume and consequently its mass would be one-tenth of one-tenth of one-tenth of its former value. He would weigh one one-thousandth as much as before.

But his muscles, with the strength of their cross-section, would have one-tenth of one-tenth of their former strength. He would be one one-hundredth as strong but only a thousandth as heavy. So that, in relation to his size, he was ten times as strong as before.

He had been able to lift two hundred pounds without undue exertion. He could now lift only two pounds with equal exertion. But two hundred pounds had been only fractionally more than his own weight. Two pounds was many times what he weighed now—at least sixteen times.

He had been able to do a standing high jump of something over five feet

when he was practically six feet tall. Now he could jump nearly if not quite five feet vertically, when he was only six inches tall. These plain facts of arithmetic explained his sensation of loss of weight—as if he were falling—and the utterly improbable bouncing gait he had had to substitute for walking.

But nothing explained what had happened to the actual mass his body had possessed. On a scale now he might weigh two ounces. A hundred and fifty-nine pounds-plus of mass had disappeared. It couldn't happen. Neither could his ensmallment. Both things had.

He went back to the living room and gazed up at the desk. It towered seven times his own height above him. He went grimly around to one end and leaped. He soared incredibly, like the hero of an imaginative comic book. But it was not exactly comic when he tumbled over an envelope-rack on the desk-top—to him it seemed four feet tall—and fell sprawling into an open box of paper-clips.

He got up and went to the box which was like a battery television set—which did not exist. This box felt warm at one place, as if radio-tubes inside it slightly warmed the case. He could feel a vibration, too, as if a magnetic field were going on and off with enormous rapidity and producing normally imperceptible vibrations of the metal. He turned the controls. Nothing happened.

He estimated where he had stood when this business began. He took a paper-clip and heaved it out to pass through the space his full-sized body had occupied. The paper-clip seemed a foot and a half long, to him, and its wire more than half an inch thick but he was able to throw it easily, almost three feet straight out from the desk-top.

It vanished. He saw an infinitesimal thing go glittering down to the rug and become lost among the fibers. The paper-clip had been ensmallled as it passed through a certain space and was now of a size which was appropriate to Larry if of no great utility.

But he made more sure. He found a pencil and heaved it out with the motion of a Scotsman hurling the camber. It twinkled and dwindled abruptly, and fell as a tiny object of a size he could use readily enough.

He found a notebook. He heaved it out into space. He emptied the desk-top of

most of its moveable small objects. Two packs of paper matches and a pack of cigarettes.

THE ensmalling field fanned out in a sort of cone from the front of the pseudo-television set. It reached out about four feet and there perhaps reached some critical attenuation and abruptly ceased to have any effect at all. Larry dropped a pen outside the field to serve as an extra spear and jumped down to the floor again. He knew he had jumped up but it was hard to summon nerve for a drop at least as great as from the roof of a three-story house.

He reached the floor lightly and saw the gray cat, as massive as an elephant in relation to himself. It glared at him balefully through the doorway from its position atop the dining-room table. It was devouring the dried-up remnants of the meal in the plates.

The cat reminded him of the pen he'd dropped to serve as a spear. He picked it up. It was slenderer than the other. He hefted it meditatively. He tried a throw. He could actually heave it several feet—real feet—but it was extremely bulky.

He remembered the toppled glass thing on the floor in the dining-room—the thing with the hacked-open plastic top. It had been a pepper-shaker. He'd felt that another human of his own size had opened it. Now he saw why.

Pepper, thrown into the air, would stop the rush of even the monstrous carnivores which had been half-starved domestic cats. For safety one might need a breathing-mask when using it but that could be managed.

On the other hand there had been no cat inside the house until he—Larry—had entered in his normal size. So whoever had cut open the top of the pepper-shaker had intended to go out.

Larry looked out the kitchen door. A cat—it looked as big as a dinosaur—was climbing up the mesh of iron bars which was the screening of the porch. It clawed its way out of sight. Then a bird flapped away from the porch roof. It was only a robin the cat was stalking but Larry could have ridden between its wings.

There were other cat-monsters in sight, crawling everywhere. To a man six inches tall the cropped lawn outside this house was more dangerous than any

jungle could possibly be. Anybody who would have hacked open a pepper-shaker to get its contents would have to be very brave or very desperate to plan to go outside this house.

Thinking busily he returned to the living room to retrieve the things he'd dropped through the ensmalling-field. He found the notebook—largely notes in mathematics too abstruse to have meaning for him—the pencil, a fountain-pen, two of the paper-clips and one of the packs of paper matches.

The importance of being able to make a fire occurred to him and he spent half an hour hunting for the other. He picked up envelopes addressed to Professor Emily Drake, the two pictures from the desk and then the cigarettes before he found the matches.

He began to have an idea. He went back to the porch to think. Someone—some other human—had been reduced in size as he had. That other human had deliberately left this house for cause. The cause must have been overpoweringly good.

The name Emily Drake was tantalizingly familiar. He took out the cigarettes and stuck one in his mouth. It was perhaps unwise to use a match for a mere smoke but he indulged himself. He struck a match.

He had a monstrous, flaring ball of fire in his hand, flaring violently.

By sheer reflex action he threw it down before it scorched his hand. He stared at the two-foot flame which rose from the floor. Its blazing center was inches in diameter.

The thing was startling. There was a matchhead, flaring on the plank floor of the back porch. Burning, it was normal size, which is to say that it was gigantic to Larry. The sulphur head burned out and was a pitted flat globule of ash, larger than Larry's fist.

The rest of the match burned and as it burned it swelled preposterously so that, when the flame died, there was a mass of ash exactly the size the normal match would have made. Actually it had returned to its normal dimensions as it burned.

Larry thought hard—and wryly. When something was heated sufficiently the effect of the ensmalling field was neutralized. He could return to his normal size himself if he submitted to being burned alive. It was not quite practical

but the information might be important.

The cat—taller than *he* was—came out upon the porch. It regarded him and arched its back, spitting. It towered horribly as it did so. Larry swung the new spear and threw it like a javelin.

But he forgot his own small mass and his relative strength. In throwing the spear he actually flung himself over backward and the spear arched high in the air and came down point-first. It stuck upright inches from the cat. The cat fled again.

Larry wrestled with the spear and finally got it free. All the time his mind was working busily. He was beginning to see the point in departure from this house. There was the problem of food. There was the plain fact—his predecessor in smallness evidently knew facts he had not yet discovered—that nobody was likely to come here.

The number of cats on this island was completely wrong. It looked as if they had been brought here and turned loose specifically because they would be deadly carnivores to human beings only six inches high. If so the ensmalling field was not accident—it was murder.

HIS predecessor had certainly planned to fight his way out of this house, having knowledge Larry did not possess. But where would he go? There would be driftwood along the shore. If one could live while hunting for suitable pieces a raft could be improvised. But the mainland was a very long way away. A makeshift raft would not do. One would have to build carefully.

Larry saw his way clear. The intentions of the person who had intended to use pepper as a defense against cats became plain. So Larry became feverishly busy. He began methodically to hunt over the house. The cat avoided him but it snarled when he came near.

He found a spool of thread and a filmy cambric handkerchief. He found absorbent cotton in the medicine-chest in the bath. He found an open box of candles, apparently for decorative burning on the dining-room table. Presently he was leaping back up to the desk—soaring like a bird—and then laboriously hauling parts of his loot up to the desk-top by the thread let down to the floor.

When he had done all he could the day was past. Twilight had begun. He had

a considerable mass of cotton reduced in size by being put through the reducing-field. He had a hundred-yard coil of line—the sewing-thread, carefully *not* reduced in size—and three candles which he could put in his pocket but which would burn with the flare of a full-sized taper and probably appropriate duration. And he had four razor-blades, not reduced.

He used one of them in the kitchen to cut through the cardboard of a cracker box to extract its contents. He had four crackers reduced in size—but he made a meal of part of one unchanged.

When darkness fell he had equipped himself and was practicing for his intended excursion of the morrow. With one spear made fast to his back and the other in his hand he exercised himself in his final development of the fine art of locomotion.

He had been walking in ridiculous bouncings. Now he practiced giant strides. He found that he could run in great leaps of sixty feet—actually inches—at a stride. In case of need, he could do much more. But he ran from one end of the house to the other, his spear held at the ready, like a man with seven-league boots.

On the third trip he came upon the cat, waiting with terrifying patience by a hole in the baseboard big enough for Larry to get through. It was undoubtedly a mouse-hole. Larry soared through the air and landed squarely on the cat's back, his spear-point safely preceding him.

It was rather like landing on a whirlwind. As Larry's feet touched, the cat leaped frantically, with a squeal that was deafening. Larry hit the floor with an undignified thud. But the cat, yelling in a deep-toned roar, fled and the spear—the lighter penholder—dropped from its fur.

Larry retrieved it, explored the mousehole and settled down to sleep behind the baseboard. He braced one spear against the opening and the other to block the tunnel beyond, so that neither cat nor mouse could reach him. A mouse, he reflected, would be to him the size of a good-sized hog. A rat would have the size and deadliness of a tiger.

He had worked hard, moving a few ounces of material a total of twenty or thirty feet. He was very weary as he settled down in the smelly small mouse-

hole to rest. But he was by no means sure he had made the proper decision.

The combination of the box on the living room desk and the number of cats on the island was not an accident. Somebody had fixed the one as a trap and brought the other to make the trap lethal.

Someone else had been caught in the trap, and that someone had been desperate enough to sally out into the open with only pepper as a weapon of defense. It wasn't conceivable that a man had provided the cats deliberately before he ensmallled himself!

So either there was hope of returning to one's normal size somewhere else or some additional danger was due to arrive here, which made facing the cats a lesser evil.

The reasoning was not altogether convincing but that ensmalling-field device was something that Larry knew should be taken care of by competent authority. He'd had something to do with rather confidential weapons during the last war, and he knew how much they meant. This thing was very important indeed!

From his knowledge of military matters alone he knew that it was his plain duty to get to the mainland, somehow get into communication with human beings of full size—it would have to be by writing—and have somebody come out and investigate that device on the living room table.

At the moment he couldn't even guess at the principle behind its operation. He was stumped by the fact that actual, indestructible mass—his body—had seemingly been destroyed. And it couldn't be destroyed.

Why didn't he weigh a hundred and sixty pounds now, only six inches high, with muscles so heavy in proportion to their size that he would be unable to breathe or stir. That bothered him. There was no explanation for the fact that he was alive!

In the end he went off to sleep with a feeling of vast irritation at his inability even to make a guess at the answer to the problem of his continued existence.

When he waked he found it hard to realize where he was. Then he heard breathing nearby. He looked cautiously out the mousehole—and a great, taloned claw swept past his face with lightning speed. The cat had missed him

by a fraction of an inch.

Larry swore and scratched a match. As he scratched he threw and a ball of flaring flame went hurtling into the cat's face.

The spitting and snarling were thunderous but Larry went out and beat out the match-flame with his spear before it could set fire to the dining room rug. He was no longer overanxious about this cat but others might be different.

IT WAS very early morning. He went into the kitchen, leaped up to the appropriate shelf and breakfasted heartily on a quarter of a cracker. Out on the back porch there was dew on the grass and on the gray-painted floor. The dew was fortunate. The cats hunted night and day but they'd like least to be about when the dew was heaviest.

He drank his fill—three entire dew-drops, which tasted slightly of paint—and then pried open the screen door with his spear. He stepped out, struck a match and threw it before him, touched his ready-fixed spear to the flame, then began to sprint.

The journey to the wharf was more like a grasshopper's whizzing flight than any normal method of travel. He started with the bottom step as backstop and leaped high and forward. He had wrapped ensmallled cotton about his spear-point and set it alight at the match.

As he soared through the air the cotton smouldered. As it smouldered it swelled prodigiously and a thick, dense trail of smoke and dripping sparks marked his passage.

He landed just right and leaped again—and again—and again. The sensation was singularly like flying. He saw one cat—but cats do not like fire. This cat leaped aside and perhaps meditated pursuit, but the reek of burning cotton dissuaded it. Larry went on.

Soaring and landing, to soar and land again, running like one wearing seven-league boots, trailing smoke and sparks behind, he made the wharf. There was a cat on the wharf. He went bouncing toward it, waving his smoking spear. The cat fled ashore.

He had only a little time. The cotton would burn out or the fire might die in it. He searched frantically for a scrap of wood. He found a fishing line wound upon a section of white-pine board. He

dragged it to the edge of the wharf. He made the string fast and dropped it overboard.

Instantly he slid down the line to the floating scrap of wood. It was fourteen inches long by actual measurement, by four and a half wide and one inch thick. These measurements could be translated into feet, as they appeared to him.

It was altogether an extraordinary scene. It was early morning of a very fine day. Larry, not quite six inches tall, worked on a cranky piece of board which was tethered by a string to a weather-beaten wharf. There was an oily surging swell on this side of the island and the bit of plank rose and tipped crazily while Larry worked.

Presently, though, a penholder stood upright near one end. It was braced by threads in three direction. A fine cambric handkerchief formed a sail. Another penholder would serve as steering-oar. Larry cut the line holding him to the wharf. He steered out to sea.

His memory of the time of tide and an estimate of wind-direction was important. This plank, in its present state, was no vessel in which to attempt a journey equivalent to forty miles over mountainous seas. But this plank could make it to that smaller island, a quarter-mile away—with luck—and there it would be possible to labor toward the creation of a sounder ship.

The plank did make it. Steering was clumsy and the boat made enormous leeway. Water washed over it and two hundred feet from the shore the waves grew rougher, so that the sail which had been wet from the beginning hung limply in the troughs and only drew fully on their crests. But the tide and wind were right.

Half an hour after setting out Larry approached the shore of the smaller island. Sheltered by its large companion, the beach had no such surf as broke on the outer sands but, miniature as they were, the combers towered four times Larry's own height as they broke.

Approaching the land he recklessly heaved overboard the line he had been uncoiling for the purpose, drove straight for the beach and, as his ship was overwhelmed by rushing foam, took off in the biggest leap of his career.

He landed in water barely up to his thighs, dug in his spear against the undertow and, as the sand dried momentarily, leaped once more to merely wet sand, each of whose grains seemed to him a good-sized pebble. There were a dozen or more trees on this island but he saw no sign of cats.

He turned to watch his boat in the surf. It was tumbled over and over, its mast broken free from its hold. The cable which had been a fishing line streamed out. Its end reached shore. He saw it stretched across the saturated sand where a wave receded. He made a dash, retrieved the end and valiantly set about hauling it up past the narrow beach to tie it to a tuft of beach-grass.

He had almost reached the grass when a voice said curtly, "Just what are you doing on our island?"

A girl in light-blue shorts stared at him from beside the grass-stems. She was just a little smaller than Larry himself and she regarded him suspiciously.

Larry had thought himself past astonishment but his mouth dropped open.

"We've been watching you for a long time," said the girl without cordiality.

[Turn page]

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"What did you do? Save Mr. Bennett's life or something? It looks as if you've had an appropriate reward!"

Larry struggled for words and could not find them. This girl had been reduced in size just as he had been. She was, in fact, the girl whose picture had been on the desk in the living room, back on the other island. She was just about five and a half inches tall, she was deeply tanned and her hair hung loose. She regarded him with frank suspicion as he gaped at her.

CHAPTER III

Dilemma in Miniature

ANOTHER voice said plaintively, "I think the young man looks astonished enough to be safe, Anne. And his ship was decidedly crude."

Larry jerked his head about again. A second figure of enshrined humanity had moved in behind him. This figure was that of a woman of middle age, definitely stocky in build, clad in slacks and a sweater. She held a particularly knobby scrap of driftwood aloft.

It made a club which was larger than the woman herself but to Larry's own knowledge such a weapon was quite practical for humans of their size and consequent strength. The girl had been the subject of one of the photographs in the living-room. This woman—pleasant-faced but now frowning—had been the subject of the other. Despite her pose and her frown this stocky woman looked rather hopefully friendly than menacing.

There was a moment's silence, the girl watching Larry's face with a determined air as if she were ready to grapple with him so her companion could beat out his brains with her club. Then Larry said awkwardly, "You must be Professor Emily Drake. I've—I've been in your house over on the other island. In fact, I've got some of your possessions in this pack on my back. That box on the desk did this to me—made me this size, that is."

The girl said curtly, "That's obvious! But why? Why did Bennett—"

The older woman repeated, still holding the club aloft, "My dear, I think he

looks quite respectable. At least, he doesn't seem to be armed, though how he escaped the cats—"

Larry interposed. "Look here! I was a castaway on your island and I went into your house for something to eat and—I got like this. I don't know who on earth Bennett is and I was just heading for the mainland to find out something."

"Castaway?" demanded the girl. "How?"

Larry explained. Heading down the coast, alone, in the *Bazooka III*, he had run into something adrift, the planking of his cruiser had caved in, and she had sunk. He had swum ashore. The girl's brows knitted. He went on to explain in some detail just what had happened after that. Presently he realized that the older woman, Professor Drake, had put down her club and was listening hopefully.

The girl said, "How long before your friends start to look for you?"

"They won't," admitted Larry. "I was off for a cruise by myself. I probably won't be missed for two weeks. Anyhow, nobody will ask questions for a month and it will be six months before anybody really raises the question of whether I'm alive or not—and then nobody will know where to start looking."

The girl looked at the older woman.

"That's out, then, Aunt Emily. There'll be nobody coming along to signal to even if we could make a fire."

"I can make a fire," Larry told her. "I tossed a couple of packets of matches through the enshrining field. Also I've some crackers. If we toast them—"

"Why toast them?"

He explained. When an enshrined thing got hot enough, it returned to its normal size. The girl looked quickly at her aunt.

Professor Drake said reflectively, "I must think about that. I really must. With a bit of paper—"

Larry handed over a notebook and a fountain pen. She blinked and dropped the club altogether. Then Larry matter-of-factly made fast the cable—it had been fishline—so that his improvised boat would not drift away.

"Where shall we make the fire?"

The girl started off, and he walked beside her. The older woman followed, thumbing joyously through the pages of the notebook and from time to time

testing again the fountain pen Larry had given her. On the sand a bouncing progress was not practical. One walked almost normally.

"What are you eating?" asked Larry, matter-of-factly.

"Mostly seeds," said the girl with some bitterness. "We could catch little fish but raw—"

"We'll fix that," said Larry authoritatively.

They came to a piled up heap of small stones. There were crevices between them, some blocked with twigs. The girl said, "We live here."

LARRY went a little way into a crevice, which widened out into something like a cave. He struck a match and instantly threw it on the ground. When the flare of the head subsided he gingerly lighted a candle. Again the improbable—the candle he held in his hand made a flame that to them was a foot and a half high. More—great, oozing masses of wax returned to normal volume and mass appeared.

"Beautiful!" said the girl.

Larry explained about the wax. It must be saved. They could keep a small flame burning—the size a candle-flame should be for folks their size—unravel a thread for a wick. The flame would be almost microscopic by actual measurement but the wax from this one candle would last a week or more.

Then he asked, "How about fishing?"

She looked helpless. He took a spear and length of the threadcable. Ten minutes later he stood thigh-deep in water with a line from his waist to the shore. Small minnows swam excitedly at the very edge of the roiling water. He was not large enough to alarm them. He speared one with the penpoint and heaved it ashore to the girl. He speared a second. A third.

He came wading out of the sea to find her regarding him with admiration verging upon idolatry. They started back toward the cave, she carrying two fish while he carried the penholder spear and the other fish. She was suddenly without any more suspicion of him.

"Cooked fish!" she said hungrily. "Wonderful! I'm Anne Drake. My aunt back yonder is Professor Emily Drake. She's the mathematician, you know."

Something clicked in Larry's brain. He remembered now. Professor Drake

had made the headlines when one of her books on the mathematics of a cosmos having five dimensions instead of three proved that the physics of such a cosmos would be consistent and could be predicted.

Newspapers had made a circus out of that book. But her scientific reputation rested on less spectacular achievements. She had been the first to furnish proof of inherent errors in Doppler-effect measurements and of the mathematical process needed to correct them. Its effect on the expanding-universe hypothesis was still making itself felt.

"This business has happened because of Bennett—Doctor Bennett, Ph.D.," she went on. "He's a research administrator"—she made a face—"of the Caraway Foundation. He hands out grants for research, arranges the cooperation of experts and so on."

"I've heard of him," said Larry. He had. Bennett was a highly affable publicity-hound. He always made any results coming from a Foundation grant seem the direct product of the Foundation and its administration rather than of the man who actually did the work.

"He got Aunt Emily—Professor Drake, if you like—" said Anne, "to do some math for a project the Foundation was promoting. Auntie did it—she really has a brain—and then made a sideline report on some inferences to be drawn from the equations that had turned up. One of them was that extension might be a dimension."

Larry jerked his head around. "What's that?"

"Size might be a dimension," she elucidated. "Like—say—thickness. Everything has length and breadth and thickness. Some things are thicker than others. They're larger in that dimension. Aunt Emily's equations said that size itself could be a dimension or a co-ordinate of space.

"You know the old illustration of four dimensions? To locate an event you say it took place at such-and-such streets in the corner building on the second floor. Naming the streets places it on a north-and-south line and an east-and-west line.

"Saying the second floor locates the event on an up-and-down line. But really to locate the event you also have to say that it took place at half-past three yesterday afternoon. That locates it

on the past-to-future line, which is a fourth dimension or time."

"That's familiar enough," agreed Larry.

"Aunt Emily's mathematical formulae said that to identify a ball completely, you'd have to name all those factors and the size of the ball besides—locate it on the bigness-to-smallness line. There's a straight line from north to south. At right angles to it, there's a straight line from east to west.

"At right angles to both of them there's a straight line from down to up and at right angles to all three, there's a straight line from past to future. And the line from bigness to smallness—"

"Is a fifth line at right angles to the other four," said Larry drily. "At this point I begin to bog down."

"That's what the equation said," protested Anne. "Aunt Emily pointed out the inference to Bennett and began to write a paper about it. Naturally, she told Bennett that too because he was the source of the original problem which had brought it out. He was acting for the Foundation, of course."

They came to the pile of small stones. Professor Drake beamed in admiration at the fish and the candle flame.

"Very satisfactory! Anne has been wondering what we should do when cold weather came. Now—"

"I'll clean the fish," said Larry.

HE set to work, propping a razor blade from his pack upright in the ground—to him it was one foot by two—and carving the minnow against its top edge. There was a booming sound overhead and a seagull with the wing-spread of a roc flapped low over the trees.

The cry of a gull to normal ears sounds like the squeaking of a rusty hinge. To Larry's ears it had the pitch of thunder. He skinned the minnows instead of scaling them.

"I was saying—" said Anne, watching the gory business without visible distaste. "I was saying that Aunt Emily told Bennett about the implications of the math. Bennett was tremendously interested. He asked to have the paper for a special Foundation publication. He was especially interested in the constants of the fields which would change the extensional position of an object."

Larry blinked. He succeeded in secur-

ing a filet—more nearly a steak—from one flank of the first minnow. He began on a second.

"You could start to cook this," he observed. "Especially as I got lost in your explanation right there."

Anne spat the two filets on twigs and with shining eyes began to cook them against the flame. Anyone who had been living on raw pounded seeds for ten days—as Larry later learned she had been doing—would be apt to get sentimental about a cooked fish steak.

But her aunt said mildly, "The fields weren't difficult to calculate. Assume an iron ball, say. We want to move it in a vertical direction. It would be easy enough to design a magnetic field which would move it up or down."

"Surely—"

"In the same way," said Professor Drake, prosaically, we can change the coordinates of that field and make it move an object east and west or north and south. We can devise a field which will make an object move forward or backward in time, but the power requirements are so great that nothing larger than sub-atomic particles have so far been moved.

"But it happens that the energy-requirements for extensional movement from bigness to smallness are quite trivial. You just gave us experimental proof of that!"

Larry silently handed over another filet of minnow.

"A relatively small temperature-change," explained the stocky pleasant-faced woman, "allows an extensionally displaced object to return to its normal position along the size line, just as a small amount of temperature change will let a mound of snow go back to water level. Very little energy indeed is needed to change the size of an object. And with its position along the size line, of course its mass—"

"Hold on!" protested Larry. "You can't destroy mass!"

"Naturally!" agreed Professor Drake mildly. "But you can displace it. The mass continues to exist but not here. Not at this point on the size line. Just as that burnt match exists unburnt but in the past and not in this position on the time line."

Larry worked on the last fish. Hootings and bellowing and other improbable noises came from the jungle which

was grass and shrubbery under the dozen or so trees of this small island.

After a moment, "You worked out the math of some fields that would change the size of objects."

"Shift them along the extension line," corrected Professor Drake pleasantly, "along the line from bigness to smallness. Yes."

"Right. But you didn't make apparatus to make such fields? You simply worked out the theory and gave the theory to this Bennett?"

"For publication," said Anne. "Here! Have some fish! It's wonderful! And it's hot!"

"Thanks." Larry handed over the last fllet and wiped his hands on his shorts. "If you'll toast this cracker carefully it should go back to normal size and we'll have a supply of breadstuff." He took a bite of fish steak. "You gave Bennett the theory. But instead of publishing it he used it to make a device—"

"He is a scoundrel!" said Professor Drake with asperity. "He undoubtedly intends to publish my work as his own. He made the device. Obviously. He came to my house by boat. My niece, Anne, had complained of the lack of a television set at our summer home. She is fond of watching — ah — wrestling-matches."

"Bennett told us enthusiastically that this was the very first model of a battery-operated television set. It was then an hour when no programs were on the air. We discussed the publication of my work. Then he went away, waving cordially."

Anne put part of the cracker into the cleft of a tiny stick. She held it toward the candle-flame. The flame was incredible, coming from so small a candle. Still more incredible were the masses of colored wax which oozed from beneath the flame and flowed down upon the ground as if from an endless fountain.

"And," said Anne, "next morning right after breakfast I turned on the set and stood to watch the screen light up. But suddenly I felt horrible! I screamed and Aunt Emily came running—and by that time I was the size I am now, half-crazy with fright on the rug. Aunt Emily rushed to me—and there she was, standing right beside me! And we were exactly the size we are now!"

THE half-cracker swelled suddenly in all its parts. It was scorched in spots, but it became a huge mass of edible bread which to them was something over two feet in one direction and almost half as much in another. It was almost three inches thick.

"I could cry!" said Anne, regarding it. "Oh, this is wonderful!" She bit into it and unashamedly gloated. Then she said warmly, "If there is anything a girl likes in a man, Larry, it is the faculty of being a good provider!"

Larry sat down on a pebble, a smoking bit of fish in one hand and a piece of the enlarged cracker in the other. He said, "It looks as if Bennett meant something like that to happen. There isn't such a thing as a battery-operated television set, so far. Has he been back since?"

Anne nodded.

"We saw him. We weren't really afraid at first. Scared, of course, but not really terrified. We had a cat, a big gray one, but we didn't think of danger from her! Of course, when we went out of the house Auntie carried a crochet-needle and I had a big darning-needle but we didn't think of needing to use them."

"We were keeping watch for Mr. Bennett. He'd be coming back, we thought, and then we'd set about arranging some inquiry into the fields so that we could be brought back to size."

She said, perplexed, "I don't know whether we were suspicious of him or not. I know we couldn't understand how it had happened unless he meant it. But when he came back on the second day, we ran out on the wharf and danced up, and down and waved and shrieked—but of course he couldn't hear our voices."

"He saw us. There is no doubt about it. He pretended not to but he did. And he turned his motorboat around and went away without landing!"

"That was conclusive," her aunt said precisely. "Doctor Bennett could have had no conceivable reason for coming all the way out to our island, coming within twenty feet of the wharf and then going away again without landing! He saw us! I imagine that he has reported on the mainland that we have left our cottage."

"Maybe," suggested Anne, "that we went off on a motorboat of one of our friends. It's plausible if not likely. Any-

how, that night he came back and close to the island again. And cats came ashore, wet and furious. He'd thrown them overboard and they swam. I suppose he got them from some experimental animal place. Of course he expected them to kill us for food. And they could have!"

Professor Drake chewed reflectively and swallowed.

"I have rarely enjoyed a fish more," she said firmly. "Next day we came here. We took pepper from a pepper shaker to discourage any cat which might think of attacking us. We had to use the pepper three times on the way to the beach.

"We paddled to this island on a bit of driftwood. Fortunately our strength had increased out of proportion—you've noticed that—but it was quite exhausting. It is evident that Doctor Bennett intends to appropriate my work as his own.

"In time he will come to my house, find us gone and affect great concern. He will remove his device, in due course publish my results and—with all due modesty—I would say that by publishing my work as his he will gain a scientific reputation he could not otherwise hope for!"

Larry was silent. Anne looked at him. His expression was grim. She said, "What's your opinion of that, Larry?"

"I hope to heaven you're right," he said grimly. "At least it will give us some time to stop him! If he is fool enough he will do just that and the results will be pretty bad. But if he's enough more than a fool—if he's a spy—"

Anne and Professor Drake stared at him. He looked rather sick.

"I was in a war, once. It was pretty bad. If this thing gets into the wrong hands—If Bennett is working on the side of somebody who desperately wants the scientific achievements that aren't available except by spying and American publications—why—this could be very bad indeed."

He paused a moment, then said uncomfortably, "What you've said is pretty serious. I think we've got to get busy fixing up a boat so we can get over to the mainland. I think we can do that. And then—"

"We'll attract the attention of some full-size people," said Anne. "We'll have

to communicate by writing."

Larry stood up. Unconsciously, he flexed his hands.

"That would take time," he said grimly, "and he might get warning. I'm afraid we'll have to try something a lot less easy. Since I'm the only man who knows about this it's up to me.

"I've got to get at him, destroy what data you gave him and any copies he may have made of it and—and if possible kill him before he can do some real damage!"

He was terribly in earnest though he was only a mannikin of a man, less than six inches tall, and though an ordinary house-cat was to him a carnivore of overwhelming deadliness.

CHAPTER IV

Out On the Brine

BUT nevertheless, it was two full days before they could sail for the mainland. Larry's own emergency boat was barely large enough for one passenger for the quarter-mile journey between the two islands. For a four-mile journey over unsheltered open sea something much more substantial was necessary.

They explored the island's shores for materials. They found part of a packing box that had been thrown up as driftwood. There was an end piece almost an inch thick and three three-eighths-inch planks nearly six inches wide and two feet long—which seemed twenty-four to the three humans.

They got the box apart by herculean efforts and carried the planks to a launching-place. Larry carved each of the three planks to a pointed end with a razor-blade—he had to resharpen it several times—and then they lashed the three of them, one over another for buoyancy.

They stepped two masts and fixed a provisional tin can with its top cut open and its bottom rusted away to serve as keel and centerboard. It would increase the draught of the ship but enormously lessen its drift to leeward. Actually they found out later that they could tack to windward, though clumsily. And there were a rudder of sorts and

sweeps for great emergency.

For other equipment they could do little. Anne's handkerchief, cut diagonally, made two leg-o-mutton sails. There was no shelter for anybody and for provisions they had one cracker—normal size—and some cooked filets of minnow. Their water-supply was sections of reed, filled drop by drop with water and plugged with candlewax.

When they finished they had used nearly all the fishline and much of the sewing-thread Barry had brought from the larger island. He carried one of the two packs of paper matches carefully sealed in a small hollow cake of tallow against the wet. Professor Drake kept the other. And that was that.

They set out from the smaller island as soon as the sea breeze began in the morning and sailed valiantly toward the mainland. In a straight line, it was four miles away. On a relative scale, it was forty. A craft so clumsy and so small and undersailed could not hope to travel as many times its own length in a given time as a better shaped and better fitted-out craft. But they put out regardless.

The boat made, Larry guessed, perhaps two knots an hour with a favoring wind. The waves were huge, their crests far higher than the masts, and the motion of the craft was violent beyond compare. The small island dropped behind. It seemed to recede to an illimitable distance. The mainland seemed as distant as before.

Halfway between island and mainland the breeze dropped. Presently it died. The miniature ship tossed and heaved on gigantic swells turned oily-smooth. The sun beat down. The heat became baking but the three voyagers strangely did not seem to suffer unduly.

"I should be roasting," said Anne, "but I'm not. I'm hardly perspiring! Why, Barry?"

"Your body has more cooling-area in proportion to size," he said moodily. "There's only a thousandth as much of you as usual and you've a hundredth as much skin."

"Wonderful!" said Anne. "There are advantages in being a midget!"

"Only in the summer," he said drily. "In winter you'll have the same excess of cooling surface and it'll be next to impossible to keep warm. Another thing about now, though, is that you're probably losing a certain proportion of en-

smaller water. Water that was in your tissues when your size got reduced. Ensmaller fluid should return to normal when it evaporates, shouldn't it, Professor Drake?"

The older woman, still in slacks and sweater, looked up from her notebook.

"Eh? Oh yes, of course. You couldn't have one atom staying displaced in extension. There'd have to be a mass of them. So anything that evaporated would return to size. A pint of normal water, evaporating, will carry off so many heat-units.

"The same pint, ensmaller, will be a thousandth of a pint but when it evaporates it will carry off the same amount of heat and, if condensed, should be a full-sized pint again. It would make the same amount of vapor."

Larry said briefly, "Gasoline should do the same then too."

"Oh naturally," said the Professor absently. She went back to the notebook.

"I'm probably a bit on the dumb side," said Larry, "but I think that means that you could ensmall a thousand gallons of gasoline and put them in a one-gallon tank and, if you used the right carburetor, a plane could fly just as far as with the original thousand gallons. Is that right?"

THE little ship heaved and pitched, its cambric-handkerchief sails hanging limply. The swells were large. There were no other floating craft in sight. The sun beat down.

Professor Emily Drake said, startled, "I never thought of that, Larry! To be sure! It is a very novel suggestion! You have a very practical mind!"

"Thanks," said Larry, unsmiling. "A bomber could travel ten times around the world without refueling, using ensmaller fuel which would return to size as it evaporated. The Atlantic and the Pacific wouldn't be such effective barriers, would they?"

His tone was very grim. Anne looked intently at him. She sat on the edge of the ship's deck, an appealing tanned figure in halter and light-blue shorts, dangling her bare feet in the water.

"Go on, Larry! It's on your mind. There's more, isn't there?"

"There is," said Larry bitterly. "I've been thinking. Explosives will act the same way—like matches. A thousand-pound bomb would weigh one pound—

but would explode with the force of its original size.

"How big a bomb—ensmalled—could a spy carry in a suit-case and plant in a coin-locker in a railroad station? It would be a forty or fifty-thousand-pounder, eh? Or how many tons of bombs could be ensmalled to be dropped from one supersonic fighter-plane, given practically unlimited range with ensmalled fuel?"

Anne and her aunt stared at him. Professor Drake looked uneasy.

"We've got atomic bombs and nobody else has. But what price atomic bombs against such stuff—which will come if Bennett is fool enough to publish your data, Professor Drake?"

There was silence. The stocky older woman went slowly pale. Anne said steadily, "All this is right, Larry. But why do you bring it up?"

"For your safety and your aunt's we ought to go straight to the mainland and try to get into communication with the authorities. It won't be easy because we'll be such monstrous freaks.

"There'll be all sorts of excitement. There'll be news accounts of us. Bennett will almost surely hear of the extraordinary midgets, six inches high, who can write English but not make any sounds that human ears can detect.

"It will be a week before we can get past the publicity—our first discoverers will consider themselves our owners—and the nonsense to somebody who can take action. Isn't that so?"

"Y-yes," said Anne. "Go on!"

"Bennett came to your island alone," said Larry, roughly. "He must have run the motorboat himself. Where does he live?"

Anne went slowly paler than she had been. "He has a summer place five or six miles down the coast. There's a summer colony there. I used to go to the Saturday night dances at the yacht club sometimes. Not lately. Bennett has a motorboat of his own, yes. He has his own wharf. He spends most of the summer there."

Professor Drake interrupted, oblivious to what had been said. She was stunned by the specific picture Larry had presented. She could think of nothing else.

"Larry! This is terrible! I did not realize—"

Larry dipped his hand overside and

held it up. "There's a breeze starting again. We'll have wind presently. I want to ask you two to do something for me. You've the right to try to save your lives. But the time element is important. And surprise is important, too.

"I think—unless Bennett's an outright spy—that he'll have your data at his summer place. He wouldn't carry it to the Foundation certainly. I want you to put me ashore where I can get at his house.

"I want to try to destroy that data, the manuscript you gave him, before he has a chance to recopy it in his own handwriting or, alternatively, to sell it where he could get plenty for it. Will you put me ashore and then try to make contact for your own safety?"

There were tears in the older woman's eyes. "We'll do anything, Larry! I—I simply had no idea that anything like this could be deduced from my work. It is unspeakably horrible! I did not dream of such horrors."

"There's good stuff in it too," said Larry. "Very good stuff. But it depends on whose hands it gets into. Ah, here's the wind!"

A RUFFLING wind came from the northward. The tiny sails filled. Larry swung the small ship about. He set a new course, no longer directly for the mainland but heading down the coast.

"We'll hold offshore until dark," he said quietly. "After all, if a small boy saw us from the beach he might get a boat to come and retrieve an interesting toy—this ship. If a grownup among the natives saw us there'd be some danger he'd think we were witches and it was his duty to destroy us. In any case you'll have to be very careful, making contact with full-sized people. Right now, just for my part of the job, we'll hold offshore."

Professor Drake got up suddenly and went to the fore part of the boat. She sat down and stared dully straight ahead. She had devoted her life to science and of all the sciences mathematics had seemed most completely abstract and least likely to injure anyone or anything.

But it was true that the destructive possibilities Larry had outlined lay in this work she had begun by accident and developed with pure scientific en-

thusiasm. It was true too that it was the destructive potentialities which were sure to be first developed. And, since he had started the train of thought, she saw more possible horrors.

Given a practical reenlarging device—and such a thing was theoretically possible—armies could be transported in secret with all their supplies, either in planes or submarines, to make unwarned descents in monstrous force on the coasts or even in the very heart of unsuspecting victims.

An enthusiastically penned report on abstract mathematics held in its pages the possibility of millions of deaths if not the destruction of civilization itself. And Professor Drake felt all the horror of a woman at the prospect.

The breeze blew and the tiny craft sailed on over the lifting sea. Larry questioned Anne closely about Bennett's home. She knew little about its interior—she had seen it only from the sea—but she told him every item that she did know.

She watched the coast too and, when the white houses of the summer colony came in view, she pointed out the one in question. It was partly hidden by the sand-spit which formed a harbor for the colony's boats.

It was late afternoon by then. Larry turned his small ship's head in toward the shore. As dusk fell he dared go closer still. He edged in as the darkness deepened. When it was night and he was only a few hundred yards offshore he went forward to the despairing older woman.

"It's about time for me to go ashore. You'll help Anne with the navigating from now on?"

Professor Drake said heavily, "I'll do anything."

"In the morning you can try to contact somebody," said Larry. "I don't like it. It's dangerous. As freaks you'll be roughly used. You may be killed. If I succeed it won't even be necessary. We can take time and try to work out a corrective for ourselves—a way to get back to normal. But if I fail I'm afraid it's going to be up to you."

"I'll do anything," she repeated dully. "I wish—I know Anne wishes—"

"What we wish doesn't matter," he told her savagely. "You come help work the ship. And look after Anne! Hear me?"

He went back to the stern. Under the shelter of the land the breeze grew fitful. The shelter of the sandbar became noticeable and there were barely ripples on the water.

They could see the stars and the lights in the houses. From the land came discordant squeaks and cries and bellowings. Overhead too there now sounded a series of strange cries. They were of almost infinite brevity, in tiny bursts of twenty or thirty cries each with distinct intervals between. Each separate cry began softly and swelled swiftly to peak volume, and then was cut off abruptly.

Concerned as he was, Larry threw back his head to gaze upward. He saw the tiny shape of a bat in crazy angular flight against the sky.

"That's right," said Larry wryly. "He's catching mosquitoes. They may be bad!"

But he stood by the tiller, conning the not very responsive little ship toward the shore. He made out Bennett's motorboat wharf. The little sailboat floated slowly toward it.

Then there came a deep-toned humming in the air. It seemed like the very deepest possible note of a pipe-organ. It strengthened. There was another, similar sound—yet others.

"Watch out for mosquitoes!" Larry called sharply. "Maybe that noise—"

ANNE screamed in agony and Larry snatched at a horrible thing on her flesh which in the darkness looked like an eight-inch spider with wings. He crushed it furiously in his hands. Spikes or sharp bits of its armor cut his fingers.

Anne cried, gasping, "It stung me!" There was another deep humming nearby. Larry struck savagely at it, and hit something with rapidly vibrating wings. He crushed it underfoot.

Anne said in a queer voice, "I feel—strange Larry! And it hurts horribly."

He ground his teeth. A mosquito attacking a normal human being drills past the outer skin and down to the blood-capillaries below. It injects a secretion which makes the blood more fluid so that the mosquito can drink its full.

The swelling of a bite comes from this secretion. The itching follows. There is no pain at the first bite because the insect's drill is so infinitely tiny—to a

normal human being. But to Anne, only inches high, the drill was the size of a needle. It had gone deep indeed, deep into muscle far below the skin.

More deep-toned dronings. Mosquitoes from the shore—there were none on the island—sensed the presence of thin-skinned warm-blooded prey. Anne screamed again and fought frantically.

Larry swung the boat's head away from the shore and fought with her. The deep-toned hummings became all-pervading. For minutes, it seemed that all the air was filled with almost-invisible things, six inches to nearly a foot across, droning and hovering to strike. He snatched up a water-filled reed and laid about him furiously in the starlight. Once something settled upon his head and it was unbearably horrible. He killed that one. Once a drill tried to stab his shoulder and the pain was excruciating. But he fought and fought.

Full-sized human beings, lost in swamps, have died of mosquito-bites alone. And the injected fluid, to any of the three, made consequences in proportion to their bodies' smallness. A bite from these huge, horrible things was almost the exact equivalent of a thousand ordinary stings.

But slowly, slowly, the boat forged out from shore. Presently the land breeze blew. Fifty yards from shore and the humming lessened. A hundred yards and it ceased.

Anne lay limply on the deck. For long minutes he had stood above her, fighting. He said hoarsely, "Anne! Is it bad? How many stings?"

"I lost count," she said in a queer voice. "I—don't think we can make it to the land, Larry."

"You shan't try!" he said bitterly. "It's back to the island for you!"

He groped for her wrist with some vague idea of feeling her pulse. But her fingers closed pitifully upon his fingers. He ground his teeth again. Professor Drake came aft, panting.

"The mosquitoes were horrible! My sweater and slacks bothered them, apparently. The weave was too close."

"Take care of Anne," he said savagely. "You can't go ashore with Anne! She's been bitten—horribly! Take her back to the island. I don't know whether anything will do any good, but salt water might help and mud should. Can you sail back?"

"Surely," said Professor Drake, shakenly. "Anne's ill? Of course I'll take care of her! Is she very ill?"

"I don't know," snapped Larry, "and I don't dare guess! She can't live to get ashore though and the whole business is up to me now. Start back! I'm swimming!"

He made a great leap, rising high in the air and soaring onward through the night.

He struck water many feet from the clumsy toy boat. He set out with powerful strokes for the land. As he swam, presently he heard the dronings overhead again. They hovered over the water near the shore but on land—in the grass and in the shrubbery—they would be infinitely more numerous.

Of course on shore there would be other dangers too, for a man under six inches tall, clad only in khaki shorts and with no weapon save a pen-holder with a rusty pen-point stuck in it to be towed behind him as he swam.

CHAPTER V

Fire On Shore

IT was not easy to believe that this was the planet Earth as Larry neared land. The noises were surely not those of the world he had grown up in.

The rustlings of the trees were not whisperings but effortful grunts. The normal night cries were so lowered in pitch as to be unrecognizable and there were a myriad new cries that human ears had never heard before.

There were bats in the air, and he heard their staccato rat-tat-tats of sound. There were soft sweet notes no one could have identified. They might be the mating calls of moths or tiny crawling things ordinarily voiceless.

Many times, swimming, he dived deeply and swam far as a mosquito's deep note came too close. When at the shoreline he felt mud underfoot instead of sand he caught his breath in relief. He had to wade ashore through a minor morass but he deliberately mired himself as thoroughly as he could before he reached solid ground.

A coating of mud would be armor against bites. When he emerged to

solidity he went first in quest of leaves, and found them and plastered them against his body. Days before he had wrapped yards of thread around his waist as the most practical way of carrying a supply of line.

Now he used it to make himself almost a mummy with masses of mud held in place and protected from drying by leaves wrapped on outside. He even had a collar of leafy stuff to protect his neck and shoulders. Finished, he was not recognizable.

But he was on the lawn of Bennett's home. He was only yards from the wharf. He moved toward the patch from the wharf to the house. He was alone as at the very beginning of this adventure.

Anne and her aunt were headed back to the small island through the night. Anne was weak and ill. She might be dying. Her aunt was helpless in most matters—more helpless even than Larry felt himself to be.

Anne had been bitten by mosquitos which were gigantic to her. Her veins were filled with the poisonous stuff which raises welts on thick-skinned folk. To her it might be as poisonous as snake venom. No human before her ever had so monstrous a dose of that poison. There was absolutely nothing that could be done.

And Bennett was directly responsible. Larry let rage fill him—rage that throbbed in his temples and pounded in his chest and made him, in ferocity at least, the equal of any creature on this colossal continent.

He reached the house. He leaped up the steps. His armor of mud and leaves did not weight him down unduly. He saw lights inside the house. He leaped up to a window sill and peered in, holding fast by his fingers hooked through the mesh of the window-screen.

There was a single light, as if the occupants of the house had gone out somewhere and left it on for convenience on returning. He could not get in through the screen. He moved up and down the length of the porch. There was no opening by which he could enter.

He went around to the side, found a back porch, screened and with the door tightly closed and latched. Something moved nearby and a cat regarded him suspiciously. He charged it in a savage leap. He stabbed its nose with his spear point. It squalled and fled, spitting.

A cat is not a fighting animal except for the favors of a female. But even in his rage Larry reflected grimly that he would not charge a dog. Hurt a dog and he fights. That is why most men prefer dogs.

Around the side of the house it was very dark. Side windows—there was one whose screen seemed a little bit loose at one corner. But its sill was nearly eight feet from the ground. He could not have leaped it at the best of times. There was no tree or brushwood to climb and leap from. He searched farther and came back.

Grimly he essayed a pole-vault leap. He ran, planted his spear-point and swung up, heaved mightily with his arms. He went arching on and upward in a mighty swoop that landed him precariously on the sill.

There was a place where the screen was loose. He stood on the sill, two inches wide—which seemed to him two feet—and behind him yawned a drop of fifteen times his own height or more. But he heaved at the screen.

Strand by strand, with his disproportionate strength, he bent back the soft iron bars which were actually screen-wires. Presently he could enter. He leaped down to the floor.

He was a tiny mud-smeared homunculus, wrapped in armor of green leaves and spreading the odor of salt-marsh mud. He progressed in weird hopping leaps. The house was still. Lights burned here and there in halls and the like.

He saw a library table and a magazine that had fallen to the floor beside it. It was a subscription copy and the name and address confirmed his entry. This was Bennett's house. He went hopping to the stairs. All was silence. The gigantic leapings of a small muddy creature with burning eyes made no sound.

He searched the second floor. All of its rooms were empty of life. He found a study with a safe—the door was open—and a desk with papers on it. He swelled with fury. There were pens here too. He reared himself. He leaped down and heaved mightily at a wastebasket. He overturned it. He scattered its contents. He took out the tiny hollowed cake of candle-wax in which his matches were sealed.

The first match flared balefully, a huge flame which swelled in size as it burned. He touched papers to it and

spread the fire. The sheer lust of destruction filled him. He ran to another room and set fire to the drapes—to another.

HE FOUND himself in the bath and his incendiariam had been limited because he was not strong enough to pile up burnables. Now he had aid. He went bouncing about the rooms on the second floor, dragging a trail of flaming tissue. Things caught and caught. Smoke began to grow thick.

He went leaping down the stairs, waving a torch of tissue from which burning fragments scattered on every hand. Drapes, newspapers, upholstery—he spread fire with a crazy industry. Smoke swirled everywhere.

He was in the beginning of an inferno. There was no possible way for him to escape. The window by which he had entered was ringed with flame. The doors—he could not possibly open them.

He stood panting, gazing about him in savage satisfaction, when he heard a crashing upstairs. Then, instants later, he felt the transmitted impacts of many feet upon the porch outside. The door flew open and full-sized humans dashed in.

One of them, a beefy man in gray slacks and white linen coat, made a dash for the stairs. Others shouted at him. He was halfway up the steps when he saw roaring flames above and stopped and wrung his hands. He came down again.

Other figures clawed at him, but their voices were too deep-toned for Larry to hear. Some of them began hastily to get what furniture was movable out through the door. Only the beefy man stood wringing his hands. And he fitted the description Anne had given of Bennett.

The door was open now. Larry could escape. He had been visible but unseen, because no man had eyes for the floor with the house in flames all around about and overhead. He grinned in satisfaction at the damage he had done.

Bennett would not have trusted Professor Drake's data out of his hand and it was now surely burned or burning. A fool like Bennett could never reproduce that data from memory! But he should be killed. Larry lusted for a weapon, en-smelled so he could use it.

And then he saw the answer. The answer to everything, including his present craving to do physical harm to the

man who was responsible for Anne, now probably dying on a crude toy sailboat somewhere out on the ocean in the dark.

He rushed upon the beefy man and stabbed him venomously in the leg with the pen he'd acquired upstairs. He felt the vibration of air as Bennett bellowed in amazed pain. Then he looked down and his eyes widened and Larry made sure he saw the tiny mud-stained human shape which had attacked him.

Then Larry darted for the open door. His mode of locomotion was so strange—great bounding leaps like those of no other creature—that no eyes could follow him. Bennett had seen him and that was enough. He reached the open air and crowds were coming and the headlights of cars were roaring toward the house.

He halted and watched the fire. The whole interior of the house became a raging furnace. The roof fell in just as an apparently volunteer fire-engine finally got a hose line stretched. After that there was nothing but embers on which the hose played futilely and a crowd of curious gabbing neighbors. The tiny figure which was Larry stood off in the darkness, watching with unsatisfied hate.

The job was not finished but much had been done. The rest would have to wait for daylight.

He went off to the farthest part of the ground and three times killed mosquitos on the way. He found a spreading shrub about whose base the earth had recently been loosened. He burrowed down into it until only his face was exposed and he covered that with a leaf.

He had much yet to do. Perhaps, most important of all just now, he had to keep from thinking of Anne. If her aunt missed the island—and though both had done considerable boating it was certainly likely in such a craft as she rode—the clumsy little toy-ship could be swept out to sea.

That would mean death of hunger or thirst. To beach on the wrong island would as certainly mean destruction by the cats. And if neither of those things happened Anne might already be dead or dying in agony of the poison injected by the mosquitos.

Those monstrous creatures boomed solemnly above him from time to time, unable to reach his body through its

half-inch of earth or his face through the protecting leaf.

He had to drive his mind from Anne and he concentrated upon his schemings until sheer weariness brought him asleep.

DAWN and a booming uproar came together. It was raining, a teeming downpour through which he could see only that the ruins of Bennett's house still sent up thin little wisps of steam. The leaves of the shrub under which he lay were shaking violently from the impact of raindrops. On their undersides he saw mosquitos clinging for refuge from the rain.

He uncovered himself and went tentatively to the edge of his shelter. A dripping fell upon him—about a tumblerful of liquid in one huge drop. The impact was definite but cushioned. The water spread and bounced. He ventured out. The direct impacts were harder but he still wore his leafy armor. The drops were buffets but they did not sting.

He abandoned his shelter. Rain would keep most creatures close. Cats would not prowl. Dogs would curl up contentedly and sleep indoors. Humans would not be about and at ten yards' distance no human would see him in any case.

He set out doggedly along the seashore. The island to which he must return was six miles up the coast and four miles out at sea—the equivalent of sixty miles by land and forty by water. He possessed for equipment a wooden penholder with a penpoint attached and a certain amount of cotton thread now holding leafy armor about his body.

But in six miles of seacoast there is bound to be some flotsam and jetsam. Scraps of wood, empty bottles, corked—nobody knows why—and thrown overboard. Scraps of cloth no longer useful and reaching the beaches no one knows how. In six—or sixty—miles of shoreline there would surely be materials he could somehow twist into a craft that would sail and could be steered.

He trudged along through the downpour. Big droplets struck him and splashed. There was a very torrent of sound all about. When he passed the edge of Bennett's property and unkempt woodland came down to the beach the sounds of living things were more frequent still.

The oily sands, here behind the sand-spit were pockmarked by the falling water. A mist of rain hid everything a mere few yards away. It was a time of almost complete safety for a creature like Larry. Even hawks, which to him would be deadly, would not be hunting in such weather.

The water's edge curved eastward and the shoreline turned to sand. This was the sandbar which formed a harbor for the summer colony. Larry doggedly followed its edge, peering here and there in rain which constantly and irritatingly pelted him.

He thought of Anne. He could not guess the ultimate effects of the stings she had received. The stuff might be sheer poison—and so she might be dead—or it might be essentially an anaesthetic, normally keeping the mosquito's victim from feeling anything until the creature drank its fill.

Or, of course, Anne and her aunt might be far out at sea on the ship made of a packing-case, hopeless of ever seeing land again.

Once Larry passed through a colony of fiddler crabs. They were rusty-brown creatures, the males with one gigantic claw apiece, running up to two feet in size. The demurer females had both claws small. They were scavengers only. They would not attack a living thing.

The rain-packed sand was harder than dry stuff and Larry returned to his bouncing mode of travel. He moved at nearly the walking pace of a full-sized man.

Once he saw a lot of hermit crabs in promenade upon the beach. For protection they were the emptied shells of sea snails and conchs and the largest hobbled along under houses which were as tall as Larry's knees. Once he saw a packing box half buried in sand. He saw a whittled stick.

He reached the end of the sand spit and to seaward there was only the gray of falling rain. Here there was no protection for the beach, and the waves were higher. But today there was no surf. The swells merely surged and gurgled against the sand.

He had marked down a jagged piece of driftwood for use if nothing better turned up, and was keeping his eyes open for a bit of cloth to use for a sail when he saw the real boat.

Some small boy had unquestionably

mourned its loss. It was eighteen inches long. It had a heavily weighted keel and a stamped-steel hull and it was not even badly rusted. It had a watertight deck and its sails were almost intact. It was a godsend.

If he could get it in the water—For an hour or more he labored over it. He cleared the sails of sand. Despite his abnormal strength he could not lift it. Only after scouting for hundreds of yards for small sticks to use for levers was he able to slide it down to the water's edge and there he was completely baffled.

As fast as he edged it into the water—while its deep keel kept it from floating upright—the surging swells pushed it back again. He could not get it into the water where it could swim upright and let its sails fill.

He was almost in despair when something huge and shaggy, rain droplets glistening on its coat, came trotting restfully along the beach. The gigantic creature sniffed inquisitively at Larry and he froze. It was a dog, a collie, relatively to Larry three times taller than the tallest elephant.

And as he stood utterly still—to fight a dog would be to have him fight back—a gray shadow appeared off in the rain. It was a boy, barefoot, out in the rain with his dog. And no boy could conceivably pass by so splendid a ship as Larry had found!

The dog wagged his tail. He barked joyously at Larry. Larry heard the boy whistle.

CHAPTER VI

Sailing, Sailing . . .

IF ALL things on earth at this moment Larry wanted least to attract the attention of a normal human being. He heard the whistle again and the dog trotted back to his master and pranced. He led the way back.

By that time Larry had vanished. Giant leaps had sent him out of sight and past trailing even by the dog's sensitive nostrils. But he watched with helplessly clenched hands as the boy picked the boat and gloated over it and fondled it up and fondled it.

Larry's hopes seemed utterly dashed

but he followed as the boy went on. If he knew boys—

The boy waded out and put the boat in the water. There was little wind but she floated proudly. Presently she gathered a little headway. Larry made great cricket-like leaps and got ahead along the way the boy was moving. He made the greatest leap of his career and landed a good twelve feet beyond the water's edge. He trod water there, waiting.

Presenting the boy came wading along toward him, shepherding the boat in the surging swells and among the raindrops. He looked like Gulliver with a ship of the enemies of Lilliput. The boat got ahead of the boy—its wet sails filled with what little breeze there was—and he splashed along after it. The dog barked and danced on the beach.

The boat was perhaps fifteen actual feet ahead of the boy when Larry swam swiftly to it, clambered over the side with a heave on the side stays, ran aft and put over the helm with a vast effort of all his muscles. Then he posed on the stern, waving to the boy to stand back.

He saw the boy's mouth drop open. He continued to gesticulate dramatically. The boy stood blankly and the boat gathered more way. Then the boy—disbelieving his own eyes—waded deeper after the boat and Larry gesticulated more violently still. The dog splashed into the water after the boy. If he had been trained to retrieve—

But he hadn't. At least he didn't. The boat sailed on, farther and farther from shore, until the boy's expression of absolute stupefaction was lost in the rain between. Just before the shore was blotted out from sight Larry saw him turn and go wading back to the beach, then set off at a dead run along it.

He would tell what he had seen—a six-inch living man, dressed in green leaves, sailing a toy boat resolutely out to the open sea—and there was only one person on earth who would believe him. That person was Bennett.

But if Bennett heard his tale, if it were not suppressed by sternly truth-loving parents, then Bennett would have more reason than that of avenging the stab in his leg that Larry had given him, to do exactly what Larry wanted.

So Larry swung the tiller yet again and sailed north along the shore. The land itself was invisible and had best

remain so. There was however the direction of the swells to serve as a marker of direction.

It was a nice problem in seamanship he faced, to establish the speed of the boat in miles per hour when all distances seemed multiplied by something close to ten. Then to take account of a tide he could only guess at and currents he could not know of at all and to adjust his course because he could not trim his sails.

It took him an hour to unknot the strings which served as sheets and of course he could not reef. Most probably the sails would not come down if he tried to lower them. But struggling with such difficulties helped avoid the nagging despair over Anne.

In two hours the clouds grew thin and the rain ceased. He edged out farther from the land. The wind increased and the seas rose. The deck of the tiny ship was swept from end to end over and over again.

But there was something quite superior about this boat. The keel was adequate. She made almost no leeway. She went valiantly up the slopes of mountainous seas, her bowsprit pointing heavenward, teetered delicately on the crests, then plunged gallantly upon the downward-sloping flanks.

In three hours, Larry saw the islands offshore. He had been heading past them.

He came about and drove hard for his destination while more clouds blanked up in the east. The wind freshened and the little ship heeled over and left a bubbling wake behind her.

Flung spray battered at Larry. There

was more rain coming. There would be a sea in which—if he could stay on the boat at all—he would drown in the smother of foam which would engulf his ship. And there was more than his own life at stake now.

He reached the lee of the larger island just as violent wind gusts tossed the tree-tops about. After the wind came rain—pelting, beating rain which stung when it hit. The gusts knocked the sailboat flat on her beam-ends but her keel brought her upright again and her sails vibrated harshly as the rain beat on the muslin.

LARRY felt pounded by innumerable cushioned fists. He steered grimly for the spot where they had launched the other improvised craft some thirty-odd hours before. It was back, tethered to the shore by heavy fishing-line.

Trembling a little Larry made his new ship fast to the same mooring line. He leaped through the rain for the land. The raindrops beat him down so that he fell short of his aim but he waded ashore and went racing toward the heaped-up stones in which Anne and her aunt had set up housekeeping.

Professor Drake came out when Larry shouted. She looked pale and drawn but her face lighted up as she saw Larry.

"Larry, my boy! I never expected to lay eyes on you again!"

"How's Anne?" demanded Larry. His throat ached with apprehension.

"She's asleep," said the older woman. "She's been crying over you, Larry, though she'd never admit it."

[Turn page]

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"Is she ill?"

Professor Drake pursed her lips.

"Well—not now. Not really. But all the way back here we had heavy going. She was soaked with salt water all the time. The mosquito poison seemed to act like an anaesthetic. She became unconscious, as if in a drugged sleep. I had to tie her fast to keep her from being swept overboard.

"But the salt water seemed to draw out the poison. Osmosis, of course. And the relatively large surface of her body helped a great deal. She was only dazed and half-asleep when we got here this morning. I have kept up the salt water treatment. I would say she is sleeping naturally now."

There was a vivid flash of lightning and a gust of wind which almost swept Larry—weight two ounces—from his feet even in this sheltered spot.

"Come in, Larry! Come in!"

Larry bent his head and crawled into the tiny cave among the rocks. In the two days during which they were building the first large boat Larry had found time to bring other small stones and close some of the openings and had dug out other space so that it was a quite respectable dwelling place now. An almost microscopic flame burned in an especially sheltered place in a great mass of candle-wax which would feed it for weeks.

Anne lay asleep on a bed of that close-growing moss known as pine carpet. To Larry's vast relief she did seem to be breathing quite naturally.

"I've caught some minnows," said her aunt in modest pride, "and this afternoon a crab. I imagine that on a ruler he would be a couple of inches across. He gave me quite a battle when I got him on shore. But you'll judge how good he tastes."

She busied herself hospitably at the flame while Larry looked at Anne. Over her shoulder, Professor Drake asked, "How did you get back, Larry? Of course you weren't able to accomplish anything against Bennett."

"I burned down his house," said Larry curtly. "And I feel pretty sure your manuscript was included. Then, as he stood in his living room before the fire drove him out, I speared him in the leg. And he saw me."

Professor Drake jerked her head around to stare.

"He saw me," repeated Larry in satisfaction. "He naturally thought me you because he doesn't know that I exist. I was pretty well wrapped up in leaves and I must have looked pretty strange. At any rate, he knows he was speared and his house burned down by someone our size!"

"He'll come to the island again," said Professor Drake.

"He should," said Larry. "If a small boy talks he will!"

"Larry!" said the professor vexedly. "Tell it from the beginning!"

Larry did so. He talked while outside the two-foot heap of stones a heavy squall raged fiercely, and lightning flashed and the very air quivered with the violence of the thunder. But they could not hear the thunder, of course. It was too low in pitch for their ears.

The sound of the wind was strange too as was the beat of the rain upon the trees of the island and on their shelter. And the thumping of seas upon the shore was quite unlike the way such a sound would seem to others.

At the end Larry grew somehow sure that Anne was no longer asleep, that she was listening and did not admit it because she could not hide her feelings save by feigning slumber.

So he ate the food her aunt gave him and presently said slowly, "Listen, Professor. I suppose I acted rather cold-bloodedly about Anne on the boat. I left her behind, ill, while I swam ashore."

"There was nothing else to do," said Anne's aunt firmly. "After what you pointed out—"

"Maybe. But it sounds cold-blooded," said Larry, watching Anne as she seemed to sleep. "I don't feel that way about Anne. I don't see any great hope of our ever returning to our normal size unless you work out some way to do it. It may be that we will spend the rest of our lives like this—perhaps isolated, perhaps not.

"But I don't feel cold-blooded about Anne! The business of restricting your work to—well, the one country which won't use it to wage another war seemed to me more important than my own feelings or my own happiness. I'd like Anne to know that. Will you tell her?"

Anne's aunt said reassuredly, "She knows it. She said as much. She was very irritable and seemed inclined to de-

fend everything you did, though Heaven knows I hadn't criticized it!"

Larry looked again at the seemingly sleeping girl. He was fairly sure now that her breast rose and fell more rapidly than before.

He said, "I think Bennett is going to have to come to the big island. He knows that someone our size burned his house and stabbed him in the leg with a pen. He's on a spot.

"He has to get that faked television set out of your house because he's sure someone—he thinks you—have got to the mainland and he's afraid you may be able to pass on your information. If that box were found to prove your story he'd have no hope of bluffing out a denial."

"I know but—"

"He wouldn't risk trying to come in a squall like this," said Larry, "but he won't dare wait too long. I expect him tonight at the latest. And I'm going to be over there waiting for him.

"If Anne doesn't wake before I leave I want you to tell her that"—he hesitated and said wryly—"that I wish I'd met her when we were both our normal sizes, so I could prove to her that I'd want her rather than any other girl in the world. Will you tell her that?"

Her aunt blinked at Larry. "But, my dear boy! You can tell her! I assure you that to her you're the only man in the world!"

"Yes," agreed Larry. "I am. That's what worries me!" Then he stood up. "I'm going to make sure the new boat is all right. I tied it up next to the other."

He went out into the storm. The rain had stopped but trees that seemed three hundred feet tall and were actually thirty, tossed and waved in the gale. Low to the ground and sheltered by brushwood, it was possible for Larry to keep his feet. But to have leaped up into the wind would have been suicide.

He reached a spot from which he could see the two boats. The older, earlier one was already aground and turned over the seas breaking upon it. Its masts were snapped. The new, well-made toy boat pounded heavily. Larry gasped in dismay. A normal steel boat would have crumpled at any one of such poundings. But then he realized that this boat had the same advantage of disproportionate strength that he had because of its size alone.

He made his way to the fishline cable which still held the boat fast. By keeping a steady strain on it, he could hold the boat's head inshore and keep it from random pounding on its mast. He braced himself against the stalks of a salt-bush clump and heaved. The device was working well, and the boat was coming ashore intact, when two small hands took hold of the cable beside him.

Anne had braced herself too and was straining valiantly with him.

"Here, you!" he said sharply. "You get back and rest! Send your aunt to help if you must but I don't need her!"

Practical, she said, "Don't be silly. Just a few more heaves and it will be safe!"

It was true and he grimly kept on until only the very highest waves stirred the boat on its side and none would overturn it. Then he turned to her.

"Your aunt shouldn't have let you come out!" he snapped.

"My aunt," she said firmly, "is stupid!"

A heavier gust than usual bent the trees. Stinging spray flew through the brush. He caught her arm to steady her, clinging fast to a branch with the other hand. "What did she do?" demanded Larry.

"Talking to you like that!" said Anne indignantly.

But she would not meet his eyes. The storm roared above and all about them. The sea made a great tumult. He shifted his grip on the branch to hold it more firmly.

"What—"

"You," she said exasperatedly, "knew I wasn't really asleep! You talked to her so you could say what you liked and if I didn't like it I could pretend not to know about it!"

LARRY shifted his position again. He had one arm about the branch but he held her by both shoulders against the buffeting of the wind.

"Well?" he said. "You're admitting that you heard."

"I heard," she told him shortly. "I heard you say that you were worried because as far as I'm concerned you are the only man in the world! You're almost as stupid as my aunt! Do you think it would make any difference to me if there were millions of others?"

Larry may have been stupid by her

own statement but she did not seem to hold it against him when he drew her close. Embracing a girl and a tree branch at the same time may not seem romantic but the branch was necessary in the violent gusts with which the squall seemed to be blowing itself out.

At any rate they did not notice either the branch or the lessening of the storm. It was not until matters about them were relatively calm that they actually paid attention to anything but each other.

Then they heard the Professor calling for them, searching. Larry answered. The Professor came puffing toward them.

"More bad weather's on the way," she announced, "and I think there's a boat headed in our direction. It's a long way off but it's coming. It must have started as soon as the squall moderated."

"We just finished getting our new boat safe," said Larry lamely.

The Professor raised her eyebrows. "The squall's been over for an hour. What now, though?"

"Now," said Larry, "we get it afloat again and I go over to the big island, dodge the cats—everything will be wet and they'll hate it—and get in the house."

"And then I think—I think—I'll be able to take care of Bennett. I'll have to use the new boat to make him sure that what he wants is there. Help me get it afloat again?"

The three of them, heaving, got it back into the water. Its hull was sheet steel and would hardly have been damaged in any case but its mast and bowsprit would certainly have been smashed but for Larry's care. They had saved the utility of the boat at least.

But when Larry leaped on board and would have put out the Professor calmly held fast to the bowsprit. Anne had run off toward their home among the rocks.

"We're going too," said the Professor sedately. "Anne has gone to get what pepper we have left. It is very effective against cats. And I would rather even face cats than try to live with Anne if she thought she'd let you get killed without being on hand to try to help. I think she is quite right, too!"

Anne came running with the remnant of the pepper and a spear for Larry.

Then the toy ship sailed out from the lesser island, lifting and falling and heading up gallantly in the pride of the

eighteen-inch length. There were three in her crew—Anne and Larry and Professor Drake. The Professor pointed when they were halfway between the islands.

Very, very far away, splashing and pounding in the far heavier seas beyond the island's lee, was a motorboat. It headed doggedly for the two islands. It was a bare speck upon the ocean but they could see that there was a single man in it.

"I doubt that he can see our sails," said Larry. "We should arrive before him anyhow."

Then a drifting veil of rain blotted the motorboat from sight. As the sailboat beat upwind to the wharf near the house rain began to fall again.

It rained so heavily that they were able to make fast to the wharf without attracting the attention of a single cat and the downpour further protected them so that they reached the cottage without having to fight even once.

But they were preparing to encounter something considerably more deadly than cats. They were making ready to do battle with Bennett, who had to kill them for his own safety. And Bennett was a fool, which made him more dangerous.

CHAPTER VII

Nemesis

RAIN continued to fall as Larry pushed the back-porch screen door tightly shut again. He had pried it open only far enough to get out himself when he left this place days before. It occurred to him that the gray cat he'd fought twice could not have escaped. And this was the fourth day since it had slipped between his legs—when he was of normal height—to enter.

He was opening his mouth to give warning of at least one starving monster in the house when he heard Anne cry out in astonishment, quite unaccompanied by fear. He whirled and a gray cat of wholly unalarming size was rubbing itself against Anne's feet and purring loudly. Then it meowed plaintively—and its voice sounded the way a cat's should sound.

The cat, which had been so formidable as a carnivore, was now reduced to a size proportionate to their own. It was a small purring placatory creature of which they need feel no fear.

"That ensmalling field saved us a battle," said Larry dourly. "This tabby must have jumped into it somehow—maybe jumping at a moth or something. I'll go see."

He went into the living-room. It looked remarkably familiar. Three-foot columns with huge wheels at their bases upheld the gigantic platform which was the desk.

He crouched and soared up to the desk-top. He went quickly to the feigned television-set. He fumbled at its sides, found the warm place which told of radio tubes still glowing inside. The batteries then were not yet dead.

"Anne!" he bellowed. "Come here!"

From the desk-top he shouted commands for a soaring leap which brought her briskly up from the floor and to a very satisfactory landing in his arms.

He took her to the box.

"Now, what did you do to turn it on?" he demanded.

She showed him. It was very simple.

"What are you going to do?" she asked.

"Put you and your aunt in a mousehole—an old hideout of mine," he told her. "I think we're set. But if there's some way to get to an upstairs window I'd like to make sure Bennett's coming here."

"There's a window in the attic that looks toward the wharf."

They went down to the floor. Professor Drake was looking wistfully at the books on the shelves, each one of which was too heavy for her to handle.

"My dears," she said sadly, "never go in for books! I don't think I could get a single one out of the shelf!"

Larry pointed to the mousehole in the corner of the dining room. He explained that that was to be her hiding place.

"I was always terrified of mice and I like cats," said Professor Drake wryly. "No I dislike cats. Maybe I can stand a mousehole. I'll be ready."

Larry and Anne went racing to the narrow steps leading up to the attic.

The steps were individually taller than their heads, but they jumped up them, hand in hand. The attic smelled close and dusty, but there was the window open

ing to the back. They went to it and clambered up to the sill.

They looked out and the rain fell, so that all the world was gray. They could see the wharf above the bushes along the path and they could see forty or fifty yards beyond. But then the water merged with the mist of rain and there was nothingness.

"He's not in sight yet," said Larry. "We'll watch for him."

"You're sure he'll land?"

"I think so," said Larry. "Our new boat is tied to the wharf. It is eighteen inches long. Only people our size would moor a toy boat. Anybody else would pick it up and carry it indoors. He'll know we're here on this island."

"And—what are you going to do?"

"I hope," said Larry wryly, "that I'm going to end his ability to play the fool with your aunt's discovery. I don't like the idea but I have to do it. He will destroy the three of us if he can, and he would destroy millions of others without in the least intending it—perhaps."

"There is a point where folly amounts to wholesale murder. I think he has that folly in mind. Certainly, if he isn't a fool, we have no chance of living!"

There was a little pause. Larry looked out the window. Anne said uneasily, "I—I thought we were fairly safe. How could he kill us so certainly?"

"The sensible things for him to do," said Larry grimly, "would be to smash our boat first. Then he should come into the house and turn off the ensmalling-field generator. He should pick it up and hold it under his arm while he sets fire to this house. Then he should catch some cats and turn them loose on the smaller island. And then he should go away quickly. If he does those things in that order we haven't the ghost of a chance to live."

THE noise of the rain on the roof was not to their ears a steady, booming, drumming sound. Nor were the cries of the rain-loving small creatures of the island the high pitched ringing sounds that would have been normal. Hooting and grunts and cries of a weirdness indescribable came through the noise of falling water. There was the rhythmic soundless vibration of the surf.

And then Larry, staring out, saw a darker mistiness at the edge of visibility. He pressed Anne's hand meaningly.

The shadow grew deeper and then it was a motorboat. There was one man in it.

"Now," said Larry evenly, "we see what he does."

The boat came close to the wharf, and its motor cut off. It went out of sight below the wharf planking. Then something rose in the air and fell on the wharf deck. It was the toy steel boat in which Larry had sailed from the mainland and which had brought the three of them here. It fell upside down. Its mast snapped.

Then a man—he seemed gigantic—swung up into view. He stamped savagely on the toy boat, reducing it to crumpled, useless wreckage. He wore oilskins but only one man on earth would have smashed a child's toy boat with so furious a desire to destroy it.

"He's started off right," said Larry, very pale. "We go downstairs and into the mousehole. Come on!"

The man came stamping toward the house. The two small humans jumped to the attic floor and then down the steps. Professor Drake, a stocky-semi-masculine figure, was the subject of the tiny gray cat's attention. The cat was the only living creature which had been reduced in size to compare with the trio.

Larry snapped at her and she picked up the kitten and followed. He thrust Anne into the mousehole in the dining room baseboard. Anne panted, "Your spear!"

He darted out and retrieved it. He had just reached the mousehole again when he felt the impact of heavy footprints on the back porch.

He peered out the mousehole. He saw the man in the kitchen. He was a veritable living mountain. His head almost reached the tops of the doorways, which were as high as fifteen-story buildings. He had shoulders thirty feet across—arms which, in their oilskin sleeves, were two yards through.

His fingers were four feet long—his knees more than two stories from the ground. His waist was thirty-five feet from the floor. His shoes were nine feet long with soles ten inches thick. And he carried a shotgun forty feet in length with a bore into which Anne at least could have slipped without difficulty.

He came pounding into the dining room and it seemed that his wetted oilskins were acres in extent. Larry saw him stalk into the living room.

He was cautious in approaching the desk on which the ensmalling-field device still stood. He approached the end of the desk rather than its front, reached over and slid his hand cautiously to the turn-on knob. He turned it off. Larry heard the noise which to Bennett's ears would be a click.

Cagily Bennett waved the barrel of his shotgun before it. Nothing happened. The ensmalling field was turned off. He picked up the electronic device and tucked it under his arm.

"He's doing the right things all along," said Larry very composedly. "I've got to stop him now!"

He swarmed out of the mousehole and darted to the living room door. He raised his spear and put all his strength and sense of balance into the throw.

The spear hit the oilskin coat with a perceptible impact. The penpoint could not penetrate to wound but it stuck fast in the cloth.

Larry stood in plain view. As the man-mountain stared down and saw the pen which was surely a missile—and repeated Larry's vain attack in Bennett's own burning home—he suddenly roared with triumphant anger. His eyes fell upon Larry, who crouched in readiness.

The giant put down the generator of the ensmalling-field. He triumphantly raised the gun.

But Larry had vanished.

The man hunted savagely—furiously. He came stamping into the dining room and turned over every chair and searched in every crevice. But of course he ignored the mousehole. Drawn far back down that tiny tunnel they heard him in the kitchen, raging, overturning pots and pans.

LARRY eeled out of the hole and went streaking for the ensmalling-field generator. He leaped up to its face. He swung all his strength on the turn-on knob, straining his muscles creaked.

The knob turned.

Larry hid. He felt the floor shake as Bennett came back. Bennett had matches in his hand now. But before he set fire to the house he must pick up the device he dared not leave behind. He had turned it off. He could not know that Larry had turned it on again.

His shriek of terror as the field ensmaller seemed to rise in pitch from

a hoarse bellow to an unmanly shrillness.

He was a mannikin, a midget, slightly under six inches tall, absurdly clutching a shotgun that was just a little over three inches in length with a bore that a pin would hardly enter.

As he screamed, looking about him, Larry stepped out and faced him.

"Welcome to our city," said Larry sardonically. "You're Bennett. My name is Larry Hart. I'm the man who burned up your house last night. Good job, eh?"

Bennett was filled with horror at what had happened to him. Perhaps he suffered more because he knew exactly what it was. When Larry—whom he did not know—accosted him, his whole body shook visibly. But he saw Larry as an immediate danger to be met.

"What—who—how—"

"Tell me," said Larry conversationally, "did I get Professor Drake's manuscript in that fire or did you have it in a safer place?"

"Prof—Prof—" Bennett gagged, sick with horror and fear and purest despair.

"Was Professor Drake's manuscript in your study when it burned last night?" demanded Larry menacingly.

"Y—yes. It was. Every scrap of notes," quavered Bennett. "But what—who—"

"Splendid," said Larry pleasantly. "Then the job's finished as soon as you're killed!"

He began to walk toward Bennett. Bennett gulped.

"Killed? Me—killed?"

"Sure!" said Larry.

He approached deliberately. He could have made it in one great leap, but Bennett would not know that. So Larry walked ominously, purposefully toward him, his hands curved like talons. His expression was wholly menacing.

Bennett was dazed by the catastrophe which had befallen him but he shakily raised his shotgun. He cried in shrill panic, "Stand back or I'll kill you instead!"

"You can't," said Larry contemptuously. "Not with that!"

He moved on, his eyes burning. This man had made a trap—a trap now turned against him—which had reduced Anne to this diminutive size. He had turned loose cats by hundreds to devour her. Larry's fury at the thought of such things showed in his eyes. He let it. Bennett leveled the shotgun.

"Stand back!" he cried shrilly, "or I'll kill you! Stand back, I say!"

For answer Larry walked on. Bennett's throat clicked. Desperately he pulled trigger, aiming straight at Larry.

There was an explosion of intolerable violence. A mass of lurid flame twice Larry's height in diameter flared out. A concussion wave knocked him sprawling. But the sound was past all hearing. And the air was strangling thick with powder smoke.

When Larry struggled to his feet again, the second thing he saw was Bennett's body. It was literally torn to bits. But that was the second thing. The first was Bennett's shotgun, shattered by the explosion, burst and riven and torn—and forty feet long!

It had burst when the powder charge in its shell returned to normal size as it exploded, in the same way that a match returned to normal size as it burned. The explosion had burst the gun. The whole had returned to its normal mass.

Larry's ears rang and his whole body ached from the blow he had been dealt by the explosion. But he stared at the restored, the monstrous weapon with which Bennett had tried to kill him.

He had expected it to burst. He had deliberately let Bennett try to kill him—Bennett had schemed to have Anne and Professor Drake devoured by starving carnivores—at once as a fitting punishment and as the only certain protection for the secret of the ensmalling field. But he had not expected the reenlargement of the gun!

As he stared at it Anne came running. She sobbed, "I won't hide any longer! If you're going to be killed I'm going to be too!"

HE came out of his daze of realization. He was still shocked and bewildered, still enormously wrought up. But more than any other single emotion he felt disgust with himself for not having seen this thing sooner.

"For—the—love—of—Mike!" he said slowly. "Anne, I'm going to cover your eyes because you won't want to see what's happened. But come along and bring your aunt and the gray kitten and I'll really show you something!"

He carefully led her past the grisly sight by the stock of the restored shotgun. He demanded of Professor Drake the second candle-wax-enclosed pack of

paper matches. Puzzled, she delivered it to him from the pocket of her slacks. He picked up the tiny cat, which insistently squirmed about the legs of the nearest human.

The cat did not look too ill-fed now. Most likely it had lived on tiny moths while reduced in size.

Larry carried it, loudly meowing, to the outer screen door. He heaved that open a tiny crack. Outside the rain still poured down steadily. He stuck the little cat's head and body out—the cat resisted all efforts to put it out of doors. He struck a match. It flared hugely as its head returned to its original dimensions.

Larry gripped the cat.

"Larry!" cried Professor Drake indignantly, "you're a brute! Stop it at once!"

BUT at that instant the squirming tail of the cat entered into the flame. There was the beginning of a shrill and anguished howl.

But the sound changed. The cat changed. The shrill squall of fury went down in pitch. The cat shot up in size. Its swelling body pushed the door wider to accommodate its new elephantine size. It was, abruptly, a giant carnivore, taller than Larry at its shoulders. But it was also a giant carnivore with a scorched tail.

Emitting deep-bass roars, it leaped frantically out into the rain.

Larry laboriously pushed the door shut again. He said disgustedly, "When Bennett shot at me, the burning powder in the shell reënlarged. He had a full sized shell exploding in a gun only a hundredth of its former strength. It burst, of course. I expected that. But I didn't expect all the gun to reënlarge. Only a part of it could possibly have been heated hot enough to return to size.

"So it occurred to me that an object of a substance like metal can't be in two sizes at once, any more than it can ever be in two places at once. If any homogeneous object is reduced in size it will all go back to normal size if any part of it does.

"I figured that the liquid in our tissues is essentially homogeneous. So I tried the trick on the cat. I scorched its tail. It may have been brutal but I propose to scorch at least one of my fingers just

as badly—if anyone will join me!"

Anne gasped. Then she cried, "Oh, Larry! Of course! Let's try it at once!"

Professor Drake came sturdily forward. She said resignedly, "You make me feel like a fool, Larry! Of course that's so! It could hardly be otherwise! Scorch my finger, too, Larry!"

As a matter of fact they all scorched their fingers together.

* * * * *

An hour later they left the island, in the rowboat Anne and her aunt had used for fishing. Bennett's launch had been tethered to the pier. Larry set it adrift. There had been those horrible small masses of torn flesh—very tiny fragments to a man again almost six feet tall—to be gathered up.

Larry gathered them and buried them deep, beyond the ability of cats to dig up.

The burst shotgun, of course, he would drop overboard in deep water. The ensmalling-field generator—

He had it turned off. More than that he had opened the case and severed essential connections inside, so that by no chance could it be turned on again.

"You can use it," he told Professor Drake, "to demonstrate your discovery when you make your report to the really proper quarters."

"I think," said Professor Drake with dignity, "I shall suppress the entire discovery. We will drop that overboard too."

"The heck we will!" said Larry. "With this gadget you can fuel a plane for hundreds of thousands of miles of flight!"

"I am not interested," said Professor Drake resolutely. "You can also enable that same plane to carry thousands of tons of bombs. I serve science but not for that purpose!"

THEN Larry grinned at her. "You know the work at White Sands. don't you? Rockets? You know why they can't send a rocket to the moon! Can't carry enough fuel!

"But if you ensmall the fuel a rocket uses you can pack away a ton of it for every pound a rocket can take off with now. Would you object to the responsibility for the first rocket to the moon and back?"

Professor Drake looked at him. She was a woman and she was prejudiced

but she was also a scientist. She was tempted.

"The crew too could be ensmallled," said Larry beguilingly, "making, say, ten or fifteen pounds of crew and supplies and scientific instruments for the needed payload.

"Anne and I could take the first trip in a ten-foot rocket with a thousand times the present maximum fuel-supply. We could go to Venus or to Mars! And do you think anybody would want to start a war if the United States had space-ships that could go to Mars and back?"

Professor Drake wavered, then scowled at him.

"It's raining," she said with dignity.

"I am anxious to get to the mainland and out of the wet. I wish to send someone to get rid of the cats on my island. I shall never like cats again.

"You and Anne are going to be married, I understand. I will talk about this when you get back from your honeymoon. But now I suggest that you row your boat, Larry, if you wish to get to a preacher!"

Anne smiled happily at Larry. He pulled steadily. The boat moved on over rain-speckled waves. Presently Anne moved forward.

"If you like, Larry," she suggested hopefully, "I'll help row."

The boat went onward through the rain.



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The LION

CHAPTER I

Revolt

TOWARD the close of the Twentieth Century, the great tide of Science had at last begun to ebb. The long series of inventions that had shaped and molded the world for nearly a thousand years was coming to its end. Everything had been discovered. One by one, all the great dreams of the past had become reality.

Civilization was completely mechanized—yet machinery had almost vanished. Hidden in the walls of the cities or buried far underground, the perfect

machines bore the burden of the world. Silently, unobtrusively, the robots attended to their masters' needs, doing their work so well that their presence seemed as natural as the dawn.

There was still much to learn in the realm of pure science and the astronomers, now that they were no longer bound to Earth, had work enough for a thousand years to come. But the physical sciences and the arts they nourished had ceased to be the chief preoccupation of the race. By the year 2600



of **COMARRE**

*Rebellious scientist Richard Peyton sets forth to seek
a long-lost city and probe its strange, subtle secret!*

a novelet by **ARTHUR C. CLARKE**

the finest human minds were no longer to be found in the laboratories.

The men whose names meant most to the world were the artists and philosophers, the lawgivers and statesmen. The engineers and the great inventors belonged to the past. Like the men who had once ministered to long-vanished

diseases, they had done their work so well that they were no longer required.

Five hundred years were to pass before the pendulum swung back again.

* * * * *

The view from the studio was breathtaking, for the long, curving room was

over two miles from the base of Central Tower. The five other giant buildings of the city clustered below, their metal walls gleaming with all the colors of the spectrum as they caught the rays of the morning sun. Lower still, the checkerboard fields of the automatic farms stretched away until they were lost in the mists of the horizon.

For once, the beauty of the scene was wasted on Richard Peyton II as he paced angrily among the great blocks of synthetic marble that were the raw materials of his art.

The huge, gorgeously colored masses of artificial rock completely dominated the studio.

Most of them were roughly hewn cubes, but some were beginning to assume the shapes of animals, human beings and abstract solids that no geometer would have dared to give a name. Sitting awkwardly on a ten-ton block of diamond—the largest ever synthesized—the artist's son was regarding his famous parent with an unfriendly expression.

"I don't think I'd mind so much," Richard Peyton II remarked peevishly, "if you were content to do nothing, so long as you did it gracefully. Certain people excel at that and on the whole they make the world more interesting. But why you should want to make a life-study of engineering is more than I can imagine.

"Yes, I *know* we let you take technology as your main subject, but we never thought you were so serious about it. When I was your age I had a passion for botany—but I never made it my main interest in life. Has Professor Chandras Ling been giving you ideas?"

RICHARD PEYTON III blushed. "Why shouldn't he? I know what my vocation is and he agrees with me. You've read his report."

The artist waved several sheets of paper in the air, holding them between thumb and forefinger like some unpleasant insect.

"I have," he said grimly. "Shows very unusual mechanical ability—has done original work in subelectronic research, et cetera, et cetera.' Good heavens, I thought the human race had outgrown those toys centuries ago! Do you want to be a mechanic, first class, and go around attending to disabled ro-

bots? That's hardly a job for a boy of mine, not to mention the grandson of a World Councillor."

"I wish you wouldn't keep on bringing grandfather into this," said Richard Peyton III with mounting annoyance. "The fact that he was a statesman didn't prevent your becoming an artist. So why should you expect me to be either?"

The older man's spectacular golden beard began to bristle ominously.

"I don't care what you do as long as it's something we can be proud of. But why this craze for gadgets? We've got all the machines we need. The robot was perfected five hundred years ago—spaceships haven't changed for at least that time—I believe our present communications system is nearly eight hundred years old. So why change what's already perfect?"

"That's special pleading with a vengeance!" the young man replied. "Fancy an artist saying that anything's perfect! Dad, I'm ashamed of you!"

"Don't split hairs. You know perfectly well what I mean. Our ancestors designed machines that provide us with everything we need. No doubt some of them might be a few percent more efficient. But why worry? Can you mention a single important invention that the world lacks today?"

Richard Peyton III sighed.

"Listen, Dad," he said patiently. "I've been studying history as well as engineering. About twelve centuries ago there were people who said that everything had been invented—and *that* was before the coming electricity, let alone flying and astronautics. They just didn't look far enough ahead—their minds were rooted in the present.

"The same thing's happening today. For five hundred years the world's been living on the brains of the past. I'm prepared to admit that some lines of development have come to an end, but there are dozens of others that haven't even begun.

"Technically the world has stagnated. It's not a dark age, because we haven't forgotten anything, but we're marking time. Look at space travel. Nine hundred years ago we reached Pluto and where are we now? Still at Pluto! When are we going to cross interstellar space?"

"Who wants to go to the stars, anyway?"

The boy made an exclamation of annoyance and jumped off the diamond block in his excitement.

"What a question to ask in this age! A thousand years ago people were saying, 'Who wants to go to the Moon?' Yes, I know it's unbelievable, but it's all there in the old books. Nowadays the moon's only forty-five minutes away and people like Harn Jansen work on Earth and live in Plato City.

"We take interplanetary travel for granted. One day we're going to do the same with *real* space travel. I could mention scores of other subjects that have come to a full stop simply because people think as you do and are content with what they've got."

"And why not?"

Peyton waved his arm around in the studio.

"Be serious, Dad. Have you ever been satisfied with anything you've made? Only animals are contented."

THE artist laughed ruefully.

"Maybe you're right. But that doesn't affect my argument. I still think you'll be wasting your life and so does Grandfather." He looked a little embarrassed. "In fact, he's coming down to Earth especially to see you."

Peyton looked alarmed.

"Listen, Dad, I've already told you what I think. I don't want to have to go through it all again. Because neither Grandfather nor the whole of the World Council will make me alter my mind."

It was a bombastic statement and Peyton wondered if he really meant it. His father was just about to reply when a low musical note vibrated through the studio. A second later a mechanical voice spoke from the air.

"Your father to see you, Mr. Peyton."

He glanced at his son triumphantly.

"I should have added," he said, "that Grandfather was coming now. But I know your habit of disappearing when you're wanted."

The boy did not answer. He watched his father walk toward the door. Then his lips curved in a smile.

The single pane of glassite that fronted the studio was open and he stepped out onto the balcony. Three kilometers below the great concrete apron of the parking ground gleamed whitely in the sun, save where it was dotted with the

teardrop shadows of grounded ships.

Peyton glanced back into the room. It was still empty, though he could hear his father's voice drifting through the door. He waited no longer. Placing his hand on the balustrade, he vaulted over into space.

Thirty seconds later two figures entered the studio and gazed around in surprise. The Richard Peyton, with no qualifying number, was a man who might have been taken for sixty, though that was less than a third of his actual age.

He was dressed in the purple robe worn by only twenty men on Earth and by less than a hundred in the entire Solar System. Authority seemed to radiate from him. In comparison even his famous and self-assured son seemed fussy and inconsequential.

"Well, where is he?"

"Confound him! He's gone out the window. At least, we can still say *what* we think of him."

Viciously Richard Peyton II jerked up his wrist and dialed an eight-figure number on his personal communicator. The reply came almost instantly. In clear, impersonal tones an automatic voice repeated endlessly:

"My master is asleep. Please do not disturb. My master is asleep. Please do not disturb. . . ."

With an exclamation of annoyance Richard Peyton II switched off the instrument and turned to his father. The old man chuckled.

"Well, he thinks fast. He's beaten us there. We can't get hold of him until he chooses to press the clearing button. I certainly don't intend to chase him at my age."

There was silence for a moment as the two men gazed at each other with mixed expressions. Then, almost simultaneously, they began to laugh.

CHAPTER II

The Legend of Comarre

PEYTON fell like a stone for one and three-quarter miles before he switched on the neutralizer. The rush of air past him, though it made breathing difficult, was exhilarating. He was

falling at less than two hundred and forty kilometers an hour—but the impression of speed was enhanced by the smooth upward rush of the great building only a few yards away.

The gentle tug of the decelerator field slowed him three hundred meters from the ground. He fell slowly toward the lines of parked machines ranged at the foot of the tower.

His own speedster was a small single-seat fully automatic machine. At least, it had been fully automatic when it was built three centuries ago, but its current owner had made so many illegal modifications to it that no one else in the world could have flown it and lived to tell the tale.

Peyton switched off the neutralizer belt—an amusing device which, although technically obsolete, still had interesting possibilities—and stepped into the airlock of his machine. Two minutes later the towers of the city were sinking below the rim of the world and the uninhabited Wild Lands were spreading beneath at four thousand miles per hour.

Peyton set his course westward and almost immediately was over the ocean. He could do nothing but wait. The ship would reach its goal automatically. He leaned back in the pilot's seat, thinking bitter thoughts and feeling sorry for himself.

He was more disturbed than he cared to admit. The fact that his family failed to share his technical interests had ceased to worry Peyton years ago. But this steadily growing opposition, which had now come to a head, was something quite new. He was completely unable to understand it.

Ten minutes later a single white pylon began to climb out of the ocean like the sword Excalibur rising from the lake. The city known to the world as Scientia and to its more cynical inhabitants as Bat's Belfry, had been built eight centuries ago on an island far from the major land masses. The gesture had been one of independence, for the last traces of nationalism had still lingered in that far-off age.

Peyton grounded his ship on the landing apron and walked to the nearest entrance. The boom of the great waves, breaking on the rocks a hundred yards away, was a sound that never failed to impress him.

He paused for a moment at the opening, inhaling the salt air and watching the gulls and migrant birds circling the tower. They had used this speck of land as a resting place when man was still watching the dawn with puzzled eyes and wondering if it were a god.

The Bureau of Genetics occupied a hundred floors near the center of the tower. It had taken Peyton ten minutes to reach the City of Science. It required almost as long again to locate the man he wanted in the cubic kilometers of offices and laboratories.

Alan Henson II was one of Peyton's closest friends, although he had left the University of Antarctica two years before and had been studying biogenetics rather than engineering. When he was in trouble, which was not infrequently, Peyton found his friend's calm commonsense very reassuring. It was natural for him to fly to Scientia now, especially since Henson had sent him an urgent call only the day before.

The biologist was pleased and relieved to see Peyton, yet his welcome had an undercurrent of nervousness.

"I'm glad you've come. I've got some news that will interest you. But you look glum—what's the matter?"

Peyton told him, not without exaggeration. Henson was silent for a moment.

"So they've started already!" he said. "We might have expected it!"

"What do you mean?" asked Peyton in surprise.

The biologist opened a drawer and pulled out a sealed envelope. From it he extracted two plastic sheets in which were cut several hundred parallel slots of varying length. He handed one to his friend.

"Do you know what this is?"

"It looks like a character analysis."

"Correct. It happens to be yours."

"Oh! This is rather illegal, isn't it?"

"Never mind that. The key is printed along the bottom: it runs from Aesthetic Appreciation to Wit. The last column gives your Intelligence Quotient. Don't let it go to your head."

Peyton studied the card intently. Once he blushed slightly.

"I don't see how you knew."

"Never mind," grinned Henson.

"Now look at this analysis." He handed over a second card.

"Why, it's the same one!"

"Not quite, but very nearly."

"Whom does it belong to?"

HENSON leaned back in his chair and measured out his words slowly. "That analysis, Dick, belongs to your great-grandfather twenty-two times removed on the direct male line—the great Rolf Thordarsen."

Peyton took off like a rocket.

"What!"

"Don't shout the place down. We're discussing old times at college if anyone comes in."

"But—Thordarsen!"

"Well, if we go back far enough we've all got equally distinguished ancestors. But now you know why your grandfather is afraid of you."

"He's left it till rather late. I've practically finished my training."

"You can thank us for that. Normally our analysis goes back ten generations, twenty in special cases. It's a tremendous job. There are a hundred and thirty thousand million cards in the Inheritance Library, one for every man and woman who has lived since the twenty-third century. This coincidence was discovered quite accidentally about a month ago."

"That's when the trouble started. But I still don't understand what it's all about."

"Exactly what do you know, Dick, about your famous ancestor?"

"No more than anyone else, I suppose. I certainly don't know how or why he disappeared, if that's what you mean. Didn't he leave Earth?"

"No—he left the world, if you like, but he never left Earth. Very few people know this, Dick, but Rolf Thordarsen was the man who built Comarre."

Comarre! Peyton breathed the word through half-open lips, savoring its meaning and its strangeness. So it did exist after all! Even that had been denied by some.

Henson was speaking again.

"I don't suppose you know very much about the Decadents. The history books have been rather carefully edited. But the whole story is linked up with the end of the Second Electronic Age."

* * * * *

Twenty thousand miles above the surface of the Earth, the artificial moon that housed the World Council was

spinning on its eternal orbit. The roof of the Council Chamber was one flawless sheet of crystallite, the largest ever cast. When the members of the Council were in session it seemed as if there were nothing between them and the great globe spinning far below.

The symbolism was profound. No narrow parochial viewpoint could long survive in such a setting. Here, if anywhere, the minds of men would surely produce their greatest works.

Richard Peyton the Elder had spent his life guiding the destinies of Earth. For five hundred years the human race had known peace and had lacked nothing that art or science could provide. The men who ruled the planet could be proud of their work.

Yet the old statesman was uneasy. Perhaps the changes that lay ahead were already-casting their shadows before them. Perhaps he felt, if only with his subconscious mind, that the five centuries of tranquillity were drawing to a close.

He switched on his writing machine and began to dictate.

* * * * *

The First Electronic Age, Peyton knew, had begun in 1908, more than eleven centuries before, with De Forest's invention of the triode. The same fabulous century that had seen the coming of the World State, the aeroplane, the space-ship and atomic power had witnessed the invention of all the fundamental thermionic devices that made possible the civilization he knew.

The Second Electronic Age had come five hundred years later. It had been started not by the physicists but by the doctors and psychologists. For nearly five centuries they had been recording the electric currents that flow in the brain during the processes of thought. The analysis had been appallingly complex, but it had been completed after generations of toil. When it was finished the way lay open for the first machines that could read the human mind.

But this was only the beginning. Once man had discovered the mechanism of his own brain he could go further. He could reproduce it, using vacuum tubes and circuit networks instead of living cells.

Towards the end of the twenty-fifth century, the first thinking machines

were built. They were very crude, a hundred square yards of equipment being required to do the work of a cubic centimeter of human brain. But once the first step had been taken it was not long before the mechanical brain was perfected and brought into general use.

IT could perform only the lower grades of intellectual work and it lacked such purely human characteristics as initiative, intuition and all emotions. However, in circumstances which seldom varied, where its limitations were not serious, it could do all that a man could do.

The coming of the metal brains had brought one of the great crises in human civilization. Though men had still to carry out all the higher duties of statesmanship and the control of society, all the immense mass of routine administration had been taken over by the robots. Man had achieved freedom at last. No longer did he have to rack his brains planning complex transport schedules, deciding production programs and balancing budgets. The machines, which had taken over all manual labor centuries before, had made their second great contribution to society.

The effect on human affairs was immense and men reacted to the new situation in two ways. There were those who used their new-found freedom nobly in the pursuits which had always attracted the highest minds—the quest for beauty and truth, still as elusive as when the Acropolis was built.

But there were others who thought differently. At last, they said, the curse of Adam is lifted forever. Now we can build cities where the machines will care for our every need as soon as the thought enters our minds—sooner, since the analyzers can read even the buried desires of the subconscious.

The aim of all life is pleasure and the pursuit of happiness. Man has earned the right to that. We are tired of this unending struggle for knowledge and the blind desire to bridge space to the stars.

It was the ancient dream of the Lotus Eaters, a dream as old as Man. Now, for the first time, it could be realized. For awhile there were not many who shared it. The fires of the Second Renaissance had not yet begun to flicker and die. But as the years passed, the

Decadents drew more and more to their way of thinking. In hidden places on the inner planets they built the cities of their dreams.

For a century they flourished like strange exotic flowers until the almost religious fervor that inspired their building had died. They lingered for a generation more. Then, one by one, they faded from human knowledge. Dying, they left behind a host of fables and legends which had grown with the passing centuries.

Only one such city had been built on Earth and there were mysteries about it that the outer world had never solved. For purposes of its own the World Council had destroyed all knowledge of the place. Its location was a mystery. Some said it was in the Arctic wastes—others believed it to be hidden on the bed of the Pacific. Nothing was certain save its name—Comarre.

* * * * *

Henson paused in his recital.

"So far I have told you nothing new, nothing that isn't common knowledge. The rest of the story is a secret to the World Council and perhaps a hundred men of Scientia.

"Rolf Thordarsen, as you know, was the greatest mechanical genius the world has ever known. Not even Edison can be compared with him. He laid the foundations of robot engineering and built the first of the practical thought-machines.

"His laboratories poured out a stream of brilliant inventions for over twenty years—then, suddenly, he disappeared. The story was put out that he tried to reach the stars. This is what really happened—

"Thordarsen believed that his robots—the machines that still run our civilization—were only a beginning. He went to the World Council with certain proposals which would have changed the face of human society. What those changes are we do not know, but Thordarsen believed that unless they were adopted the race would eventually come to a dead end—as, indeed, many of us think it has.

"The Council disagreed violently. At that time, you see, the robot was just being integrated into civilization and stability was slowly returned—the stability that has been maintained for five hundred years.

"Thordarsen was bitterly disappointed. With the flair they had for attracting genius the Decadents got hold of him and persuaded him to renounce the world. He was the only man who could convert their dreams into reality."

"And did he?"

"No one knows. But Comarre was built—that is certain. We know where it is and so does the World Council. There are some things that cannot be kept secret."

THAT was true, thought Peyton. Even in this age people still disappeared and it was rumored that they had gone in search of the dream city. Indeed, the phrase, "He's gone to Comarre," had become such a part of the language that its meaning was almost forgotten.

Henson leaned forward and spoke with mounting earnestness.

"This is the strange part. The World Council could destroy Comarre, but it won't do so. The belief that Comarre exists has a definite stabilizing influence on society. In spite of all our efforts we still have psychopaths. It's no difficult matter to give them hints, under hypnosis, about Comarre. They may never find it but the quest will keep them harmless.

"In the early days, soon after the city was founded, the Council sent its agents into Comarre. None of them ever returned. There was no foul play—they just preferred to remain. That's known definitely because they sent messages back. I suppose the Decadents realized that the Council would tear the place down if its agents were detained deliberately.

"I've seen some of those messages. They are extraordinary. There's only one word for them—exalted. Dick, there was something in Comarre that could make a man forget the outer world, his friends, his family—everything! Try to imagine what that means!

"Later, when it was certain that none of the Decadents could still be alive, the Council tried again. It was still trying up to fifty years ago. But to this day no one has ever returned from Comarre."

* * * * *

As Richard Peyton spoke, the waiting robot analyzed his words into their phonetic groups, inserted the punctuation and automatically

routed the minute to the correct electronic files.

Copy to President and my personal file.

Your Minute of the 22nd and our conversation this morning.

I have seen my son but R.P. III evaded me. He is completely determined and we will only do harm by trying to coerce him. Thordarsen should have taught us that lesson.

My suggestion is that we earn his gratitude by giving him all the assistance he needs. Then we can direct him along safe lines of research. As long as he never discovers that R.T. was his ancestor, there should be no danger. In spite of character similarities it is unlikely that he will try and repeat R.T.'s work.

Above all, we must ensure that he never locates or visits Comarre. If that happens, no one can foresee the consequences.

Henson stopped his narrative, but his friend said nothing. He was too spell-bound to interrupt and, after a minute, the other continued.

"That brings us up to the present and to you. The World Council, Dick, discovered your inheritance a month ago. We're sorry we told them, but it's too late now. Genetically, you're a reincarnation of Thordarsen in the only scientific sense of the word. One of Nature's longest odds has come off, as it does every few hundred years in some family or another.

"You, Dick, could carry on the work Thordarsen was compelled to drop—whatever that work was. Perhaps it's lost forever, but if any trace of it exists, the secret lies in Comarre. The World Council knows that. That is why it is trying to deflect you from your destiny.

"Don't be bitter about it. On the Council are some of the noblest minds the human race has yet produced. They mean you no harm and none will ever befall you. But they are passionately anxious to preserve the present structure of society, which they believe to be the best."

SLOWLY, Peyton rose to his feet. For a moment, it seemed as if he were a neutral, exterior observer, watching this lay-figure called Richard Peyton III, now no longer a man but a symbol, one of the keys to the future of the world. It took a positive mental effort to re-identify himself.

His friend was watching him silently.

"There's something else you haven't told me, Alan. How do you know all this?"

Henson smiled.

"I was waiting for that. I'm only the mouthpiece, chosen because I know you.

Who the others are I can't say, even to you. But they include some of the greatest scientists in the world.

"There has always been a friendly rivalry between the Council and the scientists who serve it, but in the last few years our viewpoints have drifted farther apart. Many of us believe that the present age, which the Council thinks will last forever, is only an interregnum. We believe that too long a period of stability will cause decadence. The Council's psychologists are confident they can prevent it."

Peyton's eyes gleamed.

"That's what I've been saying! Can I join you?"

"Later. There's work to be done first. You see, we are revolutionaries of a sort. We are going to start one or two social reactions and, when we've finished, the danger of racial decadence will be postponed for thousands of years. You, Dick, are one of our catalysts. Not the only one, I might say."

He paused for a moment.

"Even if Comarre comes to nothing we have another card up our sleeve. In fifty years, we hope to have perfected the interstellar drive."

"At last!" said Peyton. "What will you do then?"

"We'll present it to the Council and say, 'Here you are—now you can go to the stars. Aren't we good boys?' And the Council will just have to give a sickly smile and start uprooting civilization. Once we've achieved interstellar travel, we shall have an expanding society again and stagnation will be indefinitely postponed."

"I hope I live to see it," said Peyton. "But what do you want me to do now?"

"Just this—we want you to go into Comarre to find what's there. Where others have failed we believe you can succeed. All the plans have been made."

"I understand. And where is Comarre?"

Henson smiled.

"It's simple, really. There was only one place it could be—the only place over which no aircraft can fly, where no one lives, where all travel is on foot. It's in the Great Reservation."

* * * * *

The old man switched off the writing machine. Overhead—or below, it was all the same—the great crescent of Earth

was blotting out the stars. In its eternal circling the little moon had overtaken the terminator and was plunging into night. Here and there the darkling land below was dotted with the lights of cities.

The sight filled the old man with sadness. It reminded him that his own life was coming to a close—and it seemed to foretell the end of the culture he had sought to protect. Perhaps, after all, the young scientists were right. The long rest was ending and the world was moving to new goals that he would never see.

CHAPTER III

The Wild Lion

IT was night when Peyton's ship came westward over the Indian Ocean. Far below the eye could see nothing save the white line of breakers against the African coast, but the navigating screen showed every detail of the land beneath. Night, of course, was no protection or safeguard now, but it meant that no human eye would see him. As for the machines that should be watching—well, others had taken care of them. There were many, it seemed, who thought as Henson did.

The plan had been skillfully conceived. The details had been worked out with loving care by people who had obviously enjoyed themselves. He was to land the ship at the edge of the forest, as near to the power barrier as he could.

Not even his unknown friends could switch off the barrier without arousing suspicion. Luckily it was only thirty kilometers to Comarre from the edge of the screen, over fairly open country. He would have to finish the journey afoot.

There was a great crackling of branches as the little ship settled down into the unseen forest. It came to rest on an even keel and Peyton switched off the dim cabin lights and peered out of the window. He could see nothing. Remembering what he had been told, he did not open the door. He made himself as comfortable as he could and settled down to await the dawn.

He awoke with brilliant sunlight shining full in his eyes. Quickly climbing into the equipment his friends had provided, he opened the cabin door and stepped into the forest.

The landing place had been carefully chosen and it was not difficult to scramble through to the open country a few yards away. Ahead lay small grass-covered hills with a few clusters of slender trees here and there. The day was mild, though it was summer and the equator was not far away. Eight hundred years of climatic control and the great artificial lakes that had drowned the deserts had seen to that.

For almost the first time in his life Peyton was experiencing Nature as it had been in the days before Man existed. Yet it was not the wildness of the scene that he found so strange. Peyton had never known silence—always there had been the murmur of machines or the faraway whisper of rockets, heard faintly from the towering heights of the stratosphere.

Here there were none of these sounds, for no machines could cross the power barrier that surrounded the Reservation. There were only the wind in the grass and the half audible medley of insect voices. Peyton found the silence unnerving and did what almost any man of his time would have done. He pressed the button of his personal radio that was tuned to the background music band.

So, kilometer after kilometer, Peyton walked steadily through the undulating country of the Great Reservation, the largest area of natural territory remaining on the surface of the globe. Walking was easy, for the neutralizers built into his equipment almost nullified its weight. He carried with him that mist of unobtrusive music that had been the background of men's lives almost since the discovery of radio.

Although he had only to flick a dial to contact anyone on the planet he quite sincerely imagined himself to be alone in the heart of Nature and for a moment he felt all the emotions that Stanley or Livingstone must have experienced when they first entered this same land more than a thousand years ago.

Luckily Peyton was a good walker and by noon had covered half the distance to his goal. He rested for his

midday meal under a cluster of imported Martian conifers, which would have brought consternation to an old-time explorer. In his ignorance Peyton took them completely for granted.

He had accumulated a small pile of empty tins when he noticed an object moving swiftly over the plain in the direction from which he had come. It was too far away to be recognized. Not until it was obviously approaching him did he bother to get up to get a clearer view of it. So far he had seen no animals—though plenty of animals had seen him—and he watched the newcomer with interest.

Peyton had never seen a lion before, but he had no difficulty in recognizing the magnificent beast that was bounding toward him. It was to his credit that he only glanced once at the tree overhead. Then he stood his ground firmly.

There were, he knew, no really dangerous animals in the world any more. The Reservation was something between a vast biological laboratory and a national park, visited by thousands of people every year. It was generally understood that, if one left the inhabitants alone, they would reciprocate. On the whole the arrangement worked smoothly.

The animal was certainly anxious to be friendly. It trotted straight toward him and began to rub itself affectionately against his side. When Peyton got up again it was taking a great deal of interest in his empty food tins. Presently it turned toward him with an expression that was irresistible.

Peyton laughed, opened a fresh tin and laid the contents carefully on a flat stone. The lion accepted the tribute with relish and while it was eating Peyton ruffled through the index of the official guide which his unknown supporters had thoughtfully provided.

THERE were several pages about lions, with photographs for the benefit of extra-terrestrial visitors. The information was reassuring. A thousand years of scientific breeding had greatly improved the King of Beasts. He had only eaten a dozen people in the last century; in ten of the cases the subsequent enquiry had exonerated him from blame and the other two were "non-proven."

But the book said nothing about unwanted lions and the best ways of disposing of them. Nor did it hint that they were normally as friendly as this specimen.

Peyton was not particularly observant. It was some time before he noticed the thin metal band around the lion's right forepaw. It bore a series of numbers and letters, followed by the official stamp of the Reservation.

This was no wild animal. Perhaps all its youth had been spent among men. It was probably one of the famous super-lions the biologists had been breeding and then releasing to improve the race. Some of them were almost as intelligent as dogs, according to the reports Peyton had seen.

He quickly discovered that it could understand many simple words, particularly those relating to food. Even for this era it was a splendid beast, a good foot taller than its scrawny ancestors of ten centuries before.

When Peyton started on his journey again the lion trotted by his side. He doubted if its friendship was worth more than a pound of synthetic beef, but it was pleasant to have someone to talk to—someone, moreover, who made no attempt to contradict him. After profound and concentrated thought he decided that "Leo" would be a suitable name for his new acquaintance.

Three hours later Peyton found the forest ahead of him once more. He checked his position carefully against the world radio grid. As far as he could tell he was not more than half a kilometer from his correct course. There was still no sign of anything made by man—only the jungle and the open plain. Yet Comarre could not be more than a few thousand meters away and the knowledge gave him at once a feeling of unease and triumph.

He would never have noticed the metal road leading into the forest if he had not been looking for it, so well was it screened by trees. Peyton stood for a moment, gazing into the jungle depths. He did not feel at all heroic, which was annoying, but he went forward steadily enough along the curiously winding road.

A hundred meters along it a surprising thought suddenly occurred to him. This road was centuries old—the forest should have buried it ages before.

Could there still be life in the city or had the road been deliberately kept open by the servants of the World Council?

Peyton stopped to consider the problem. He looked at the trees bordering the road and slowly the truth came to him. Nothing grew within twenty feet of the metal surface and even beyond that limit the trees were oddly stunted.

The road was radioactive. Not until some distant future, when its atoms had decayed, could the forest close in to overwhelm it.

Peyton had walked a few hundred yards when suddenly there was a blinding flash in the air before him. Though he realized immediately what it was, he was startled and stopped, blinking. Leo had fled precipitately and was already out of sight. He would not, Peyton thought, be of much use in an emergency. Later he was to revise his judgment.

When his eyes had recovered, Peyton found himself looking at a multicolored notice, burning in letters of fire. It hung steadily in the air and read:

WARNING!
YOU ARE NOW APPROACHING
RESTRICTED TERRITORY!
TURN BACK!
By Order,
World Council in Session.

Peyton regarded the notice thoughtfully for a few moments. Then he looked around for the projector. It was in a metal box, not very effectively hidden at the side of the road. He quickly unlocked it with the universal keys a trusting Electronics Commission had given him on his first graduation.

After a few minutes' inspection he breathed a sigh of relief. The projector was a simple capacity-operated device. Anything coming along the road would actuate it. There was a photographic recorder, but it had been disconnected. Peyton was not surprised, for every passing animal would have operated the device. This was fortunate. It meant that no one need ever know that Richard Peyton III had once walked along this road.

He shouted to Leo, who came slowly back, looking rather ashamed of himself. The sign had disappeared and Peyton held the relays open to prevent its reappearance as Leo passed by. Then

he relocked the door and continued on his way, wondering what would happen next.

A HUNDRED meters further on a disembodied voice began to speak to him severely, first in English, then in High Martian, then in a language he did not recognize. It told him nothing new, but the voice threatened a number of minor penalties, some of which were not unfamiliar to him.

It was amusing to watch Leo's face as he tried to locate the source of the sound. Once again Peyton searched for the projector and checked it before proceeding. It would be safer, he thought, to leave the road altogether. There might be recording devices further along it.

With some difficulty he induced Leo to remain on the metal surface while he himself walked along the barren ground bordering the road. In the next quarter of a mile the lion set off two more electronic booby-traps. The last one seemed to have given up persuasion. It said simply:

BEWARE OF WILD LIONS

Peyton looked at Leo and began to laugh. Leo couldn't see the joke but he joined in politely. Behind them the automatic sign faded out with a last despairing flicker.

Peyton wondered why the signs were there at all. Perhaps they were intended to scare away accidental visitors. Those who knew the goal would hardly be deflected by them.

The road made a sudden right-angle turn—and there before him was Comarre. It was strange that something he had been expecting could give him such a shock. Ahead lay an immense clearing in the jungle, half filled by a black metallic structure.

The city was shaped like a terraced cone, perhaps eight hundred meters high and a thousand meters across at the base. How much was underground, Peyton could not guess. He halted, overwhelmed by the size and strangeness of the enormous building. Then, slowly, he began to walk toward it.

Like a beast of prey crouching in its lair, the city lay waiting. Though its guests were now very few, it was ready to receive them, whoever they might be. Sometimes they turned back at the

first warning, sometimes at the second. A few had reached the very entrance before their resolution failed them. But most, having come so far, had entered willingly enough.

So Peyton reached the marble steps that led up to the towering metal wall and the curious black hole that seemed to be the only entrance. Leo trotted quietly beside him, taking little notice of his strange surroundings.

Peyton halted at the foot of the stairs and dialed a number on his communicator. He waited until the acknowledgment tone came and then spoke slowly into the microphone.

"The fly is entering the parlor."

He repeated it twice, feeling rather a fool. Someone, he thought, had a perverted sense of humor.

There was no reply. That had been part of the arrangement. But he had no doubt that the message had been received, probably in some laboratory in Scientia, since the number he had dialed had a Western Hemisphere coding.

Peyton opened his biggest tin of meat and spread it out on the marble. He entwined his fingers in the lion's mane and twisted it playfully.

"I guess you'd better stay here, Leo," he said. "I may be gone quite some time. Don't try to follow me."

At the top of the steps, he looked back. Rather to his relief the lion had made no attempt to follow. It was sitting on its haunches, looking at him pathetically. Peyton waved and turned away.

There was no door, only a plain black hole in the curving metal surface. That was puzzling and Peyton wondered how the builders had expected to keep animals from wandering in. Then something about the opening attracted his attention.

It was too black. Although the wall was in shadow, the entrance had no right to be as dark as this. He took a coin from his pocket and tossed it into the aperture. The sound of its fall reassured him and he stepped forward.

The delicately adjusted discriminator circuits had ignored the coin, as they had ignored all the stray animals that had entered this dark portal. But the presence of a human mind had been enough to trip the relays. For a fraction of a second the screen through which Peyton was moving throbbed with power. Then it became inert again.

It seemed to Peyton that his foot took a long time to reach the ground, but that was the least of his worries. Far more surprising was the instantaneous transition from darkness to sudden light, from the somewhat oppressive heat of the jungle to a temperature that seemed almost chilly by comparison. The change was so abrupt that it left him gasping. Filled with a feeling of distinct unease he turned toward the archway through which he had just come.

It was no longer there. It had never been there. He was standing on a raised metal dais at the exact center of a vast circular room with a dozen pointed archways around its circumference. He might have come through any one of them—if only they had not all been forty meters away.

For a moment Peyton was seized with panic. He heard his heart pounding and something was happening to his legs. Feeling very much alone, he sat down on the dais and began to consider the situation logically.

CHAPTER IV

The Sign of the Poppy

SOMETHING had transported him instantly from the black doorway to the center of the room. There could be only two explanations, both equally fantastic. Either something was very wrong with space inside Comarre—or else that its builders had mastered the secret of matter transmission.

Ever since man had learned to send sound and sight by radio, men had dreamed of transmitting matter by the same means. Peyton looked at the dais on which he was standing. It might easily hold electronic equipment—and there was a very curious bulge in the ceiling above him.

However it was done, he could imagine no better way of ignoring unwanted visitors. Rather hurriedly, he scrambled off the dais. It was not the sort of place where he would care to linger.

It was disturbing to realize that he now had no means of leaving without the cooperation of the machine that had

brought him here. He decided to worry about one thing at a time. When he had finished his exploration, he should have mastered this and all the other secrets of Comarre.

He was not really conceited. Between Peyton and the makers of the city lay five centuries of research. Although he might find much that was new to him, there would be nothing that he could not understand.

Choosing one of the exits at random, he began his exploration of the city.

The machines were watching, biding their time. They had been built to serve one purpose and that purpose they were still fulfilling blindly. Long ago they had brought the peace of oblivion to the weary minds of their builders. That oblivion they could still bring to all who entered the city of Comarre.

The instruments had begun their analysis when Peyton stepped in from the forest. It was not a task that could be done swiftly, this dissection of a human mind with all its hopes, desires and fears. The synthesizers would not come into operation for hours yet. Until then the guest would be entertained while the more lavish hospitality was being prepared.

The elusive visitor gave the little robot a lot of trouble before it finally located him, for Peyton was moving rapidly from room to room in his exploration of the city. Presently the machine came to a halt in the center of a small circular room lined with magnetic switches and lit by a single glow tube.

According to its instruments, Peyton was only a few feet away, but its four eye-lenses could see no sign of him. Puzzled, it stood motionless, almost silent save for the faint whisper of its motors and the occasional snicker of a relay.

Standing on a catwalk ten feet from the ground, Peyton was watching the machine with great interest. He saw a shining metal cylinder, rising from a thick baseplate mounted on small driving wheels. There were no limbs of any kind: the cylinder was unbroken except for the circlet of eye-lenses and a series of small metal sound grills.

It was amusing to watch the machine's perplexity as its tiny mind wrestled with two sets of conflicting information. Although it knew that Peyton must be in the room, its eyes told it that the place was empty. It began to

scamper around in small circles until Peyton took pity on it and descended from the catwalk. Immediately the machine ceased its gyrations and began to deliver its address of welcome.

"I am A-Five. I will take you wherever you wish to go. Please give me your orders in standard robot vocab."

Peyton was rather disappointed. It was a perfectly standard robot and he had hoped for something better in the city Thordarsen had built. But the machine could be very useful if he employed it properly.

"Thank you," he said, unnecessarily. "Please take me to the living quarters."

ALTHOUGH Peyton was now certain that the city was completely automatic, there was still the possibility that it held some human life. There might be others here who could help him in his quest, though the absence of opposition was perhaps as much as he could hope for.

Without a word the little machine spun around on its driving wheels and rolled out of the room. The corridor along which it led Peyton ended at a beautifully carved door which he had already tried in vain to open. Apparently A-Five knew its secret—for at their approach the thick metal plate slid silently aside. The robot rolled forward into a small, boxlike chamber.

Peyton wondered if they had entered another of the matter transmitters, but quickly discovered that it was nothing more unusual than a lift. Judging by the time of ascent, it must have taken them almost to the top of the city. When the doors slid open it seemed to Peyton that he was in another world.

The corridors in which he had first found himself were drab and undecorated, purely utilitarian. In contrast, these spacious halls and assembly rooms were furnished with the utmost luxury. The twenty-sixth century had been a period of florid decoration and coloring, much despised by subsequent ages. But the Decadents had gone far beyond their own period. They had taxed the resources of psychology as well as art when they designed Comarre.

One could have spent a lifetime without exhausting all the murals, the carvings and paintings, the intricate tapestries which still seemed as brilliant as when they had been made. It seemed ut-

terly wrong that so wonderful a place should be deserted and hidden from the world. For a moment Peyton forgot all his scientific zeal and hurried like a child from marvel to marvel.

Here were works of genius, perhaps as great as any the world had ever known. But it was a sick and despairing genius, one that had lost faith in itself while still retaining an immense technical skill. For the first time Peyton truly understood why the builders of Comarre had been given their name.

The art of the Decadents at once repelled and fascinated him. It was not evil, for it was completely detached from moral standards. Perhaps its dominant characteristics were weariness and disillusion. After awhile Peyton, who had never thought himself very sensitive to visual art, began to feel a subtle depression creeping into his soul. Yet he found it quite impossible to tear himself away.

At last Peyton turned to the robot again.

"Does anyone live here now?"

"Yes."

"Where are they?"

"Sleeping."

Somehow that seemed a perfectly natural reply. Peyton felt very tired. For the last hour it had been a struggle to remain awake. Something seemed to be compelling sleep, almost willing it upon him. Tomorrow would be time enough to learn the secrets he had come to find. For the moment he wanted nothing but sleep.

He followed automatically when the robot led him out of the spacious halls into a long corridor lined with metal doors, each bearing a half-familiar symbol Peyton could not quite recognize. His sleepy mind was still wrestling half-heartedly with the problem when the machine halted before one of the doors, which slid silently open.

The heavily draped couch in the darkened room was irresistible. Peyton stumbled toward it automatically. As he sank down into sleep, a glow of satisfaction warmed his mind for a moment. He had recognized the symbol on the door, though his brain was too tired to understand its significance.

It was the poppy.

There was no guile, no malevolence in the working of the city. Impersonally it was fulfilling the tasks to which it

had been dedicated. All who had entered Comarre had willfully embraced its gifts. This visitor was the first who had ever ignored them.

The integrators had been ready for hours, but the restless, probing mind had eluded them. They could afford to wait, as they had done these last five hundred years.

And now the defenses of this strangely stubborn mind were crumbling as Richard Peyton sank peacefully to sleep. Far down in the heart of Comarre a relay tripped and complex, slowly fluctuating currents began to ebb and flow through banks of vacuum tubes. The consciousness that had been Richard Peyton III ceased to exist.

Peyton had fallen asleep instantly. For awhile complete oblivion claimed him. Then faint wisps of consciousness began to return. And then, as always, he began to dream.

It was strange that his favorite dream should have come into his mind and it was more vivid now than he had ever known before. All his life Peyton had loved the sea and once he had seen the unbelievable beauty of the Pacific islands from the observation deck of a low-flying liner. He had never visited them, but he had often wished that he could spend his life on some remote and peaceful isle with no care for the future or the world.

IT was a dream that almost all men had known at some time in their lives, but Peyton was sufficiently sensible to realize that two months of such an existence would have driven him back to civilization, half crazy with boredom. However, his dreams were never worried by such considerations and once more he was lying beneath waving palms, the surf drumming on the reef beyond a lagoon that framed the sun in an azure mirror.

The dream was extraordinarily vivid, so much so that even in his sleep Peyton found himself thinking that no dream had any right to be so real. Then it ceased, so abruptly that there seemed to be a definite rift in his thoughts. The interruption jolted him back to consciousness.

Bitterly disappointed, Peyton lay for a while with his eyes tightly closed, trying to recapture the lost paradise. But it was useless. Something was beating

against his brain, keeping him from sleep. Moreover, his couch had suddenly become very hard and uncomfortable. Reluctantly he turned his mind toward the interruption.

Peyton had always been a realist and had never been troubled by philosophical doubts, so the shock was far greater than it might have been to many less intelligent minds. Never before had he found himself doubting his own sanity, but he did so now. For the sound that had awakened him was the drumming of the waves against the reef. He was lying on the golden sand beside the lagoon. Around him, the wind was sighing through the palms, its warm fingers caressing him gently.

For a moment, Peyton could only imagine that he was still dreaming. But this time there could be no real doubt. While one is sane reality can never be mistaken for a dream. This was real if anything in the universe was real.

Slowly the sense of wonder began to fade. He rose to his feet, the sand showering from him in a golden rain. Shielding his eyes against the sun, he stared along the beach.

He did not stop to wonder why the place should be so familiar. It seemed natural enough to know that the village was a little farther along the bay. Presently he would rejoin his friends, from whom he had been separated for a little while in a world he was swiftly forgetting.

There was a fading memory of a young engineer—even the name escaped him now—who had once aspired to fame and wisdom. In that other life he had known this foolish person well, but now he could never explain to him the vanity of his ambitions.

He began to wander idly along the beach, the last vague recollections of his shadow life sloughing from him with every footstep as the details of a dream fade into the light of day.

* * * * *

On the other side of the world three very worried scientists were waiting in a deserted laboratory, their eyes on a multichannel communicator of unusual design. The machine had been silent for nine hours. No one had expected a message in the first eight, but the prearranged signal was now more than an hour overdue.

Alan Henson jumped to his feet with a gesture of impatience.

"We've got to do something! I'm going to call him."

The other two scientists looked at each other nervously.

"The call may be traced!"

"Not unless they're actually watching us. Even if they are, I'll say nothing unusual. Peyton will understand if he can answer at all. . . ."

* * * * *

If Richard Peyton had ever known time that knowledge was forgotten now. Only the present was real, for both past and future lay hidden behind an impenetrable screen, as a great landscape may be concealed by a driving wall of rain.

In his enjoyment of the present Peyton was utterly content. Nothing at all was left of the restless driving spirit that had once set out, a little uncertainly, to conquer fresh fields of knowledge. He had no use for knowledge now.

LATER he was never able to recollect anything of his life on the island. He had known many companions, but their names and faces had vanished beyond recall. Love, peace of mind, happiness—all were his for a brief moment of time. And yet he could remember no more than the last few moments of his life in paradise.

Strange that it should have ended as it began. Once more he was by the side of the lagoon, but this time it was night and he was not alone. The moon that seemed always to be full rode low above the ocean and its long silver lane stretched far away to the edge of the world. The stars that never changed their places glowed unblinking in the sky like brilliant jewels, more glorious than the forgotten stars of Earth.

But Peyton's thoughts were intent on other beauty, and once again he bent toward the figure lying on the sand that was no more golden than the hair strewn carelessly across it.

Then paradise trembled and dissolved around him. He gave a great cry of anguish as **everything he loved** was wrenched away. **Only the swiftness of the transition saved his mind.** When it was over he felt as Adam must have done when the gates of Eden clanged forever shut behind him.

But the sound that had brought him back was the most commonplace in all the world. Perhaps, indeed, no other could have reached his mind in its place of hiding. It was only the shrilling of his communicator set as it lay on the floor beside his couch, here in the darkened room in the city of Comarre.

The clangor died away as he reached out automatically to press the receiving switch. He must have made some answer that satisfied his unknown caller—who was Alan Henson?—for after a very short time the circuit was cleared. Still dazed, Peyton sat on the couch, holding his head in his hands and trying to reorient his life.

He had not been dreaming—he was sure of that. Rather, it was as if he had been living a second life and now he was returning to his old existence as might a man recovering from amnesia. Though he was still dazed, one clear conviction came into his mind. He must never again sleep in Comarre.

Slowly the will and character of Richard Peyton III returned from their banishment. Unsteadily he rose to his feet and made his way out of the room. Once again he found himself in the long corridor with its hundreds of identical doors. With new understanding he looked at the symbol carved upon them.

He scarcely noticed where he was going. His mind was fixed too intently on the problem before him. As he walked his brain cleared and slowly understanding came. For the moment it was only a theory, but soon he would put it to the test.

The human mind was a delicate sheltered thing, having no direct contact with the world and gathering all its knowledge and experience through the body's senses. It was possible to record and store thoughts and emotions as earlier men had once recorded sound on miles of wire.

If those thoughts were projected into another mind, when the body was unconscious and all its senses numbed, that brain would think it was experiencing reality. There was no way in which it could detect the deception, any more than one can distinguish a perfectly recorded symphony from the original performance.

All this had been known for centuries, but the builders of Comarre had used the knowledge as no one in the

world had ever done before. Somewhere in the city there must be machines that could analyze every thought and desire of those who entered. Elsewhere the city's makers must have stored every sensation and experience a human mind could know. From this raw material all possible futures could be constructed.

Now at last Peyton understood the measure of the genius that had gone into the making of Comarre. The machines had analyzed his deepest thoughts and built for him a world based on his subconscious desires. Then, when the chance had come, they had taken control of his mind and injected into it all he had experienced.

No wonder that everything he had ever longed for had been his in that already half-forgotten paradise. And no wonder that through the ages so many had sought the peace only Comarre could bring!

CHAPTER V

The Engineer

PEYTON had become himself again when the sound of wheels made him look over his shoulder. The little robot that had been his guide was returning. No doubt the great machines that controlled it were wondering what had happened to its charge. Peyton waited, a thought slowly forming in his mind.

A-Five started all over again with its set speech. It seemed very incongruous now to find so simple a machine in this place where automatronics had reached their ultimate development. Then Peyton realized that perhaps the robot was deliberately uncomplicated. There was little purpose in using a complex machine where a simple one would serve as well—or better.

Peyton ignored the now familiar speech. All robots, he knew, must obey human commands unless other humans have previously given them orders to the contrary. Even the projectors of the city, he thought wryly, had obeyed the unknown and unspoken commands of his own subconscious mind.

"Lead me to the thought projectors," he commanded.

As he had expected the robot did not move. It merely replied, "I do not understand."

Peyton's spirits began to revive as he felt himself once more master of the situation.

"Come here and do not move again until I give the order."

The robot's selectors and relays considered the instructions. They could find no countermanding order. Slowly the little machine rolled forward on its wheels. It had committed itself—there was no turning back now. It could not move again until Peyton ordered it to do so or something overrode his commands. Robot-hypnosis was a very old trick, much beloved by mischievous small boys.

Swiftly Peyton emptied his wallet of the tools no engineer was ever without—the universal screwdriver, the expanding wrench, the automatic drill and, most important of all, the atomic cutter that could eat through the thickest metal in a matter of seconds. Then, with a skill born of long practice, he went to work on the unsuspecting machine.

Luckily the robot had been built for easy servicing, and could be opened with little difficulty. There was nothing unfamiliar about the controls and it did not take Peyton long to find the locomotor mechanism. Now, whatever happened, the machine could not escape. It was crippled.

Next he blinded it and, one by one, he tracked down its other electrical senses and put them out of commission. Soon the little machine was no more than a cylinder full of complicated junk. Feeling like a small boy who has just made a wanton attack on a defenseless grandfather clock, Peyton sat down and waited for what he knew must happen.

It was a little inconsiderate of him to sabotage the robot so far from the main machine levels. The robot-transporter took nearly fifteen minutes to work its way up from the depths. Peyton heard the rumble of its wheels in the distance and knew that his calculations had been correct. The breakdown party was on the way.

The transporter was a simple carrying machine, with a set of arms that could grasp and hold a damaged robot. It seemed to be blind, though no doubt

its special senses were quite sufficient for its purpose.

Peyton waited until it had collected the unfortunate A-Five. Then he jumped aboard, keeping well away from the mechanical limbs. He had no desire to be mistaken for another distressed robot. Fortunately the big machine took no notice of him at all.

So Peyton descended through level after level of the great building, past the living quarters, through the room in which he had first found himself, and lower yet into regions he had never before seen. As he descended, the character of the city changed around him.

Gone now were the luxury and opulence of the higher levels, replaced by a no-man's-land of bleak passageways that were little more than giant cable ducts. Presently these two came to an end.

The conveyor passed through a set of great sliding doors—and he had reached his goal.

The rows of relay panels and selector mechanisms seemed endless, but though Peyton was tempted to jump off his unwitting steed he waited until the main control panels came into sight. Then he climbed off the conveyor and watched it disappear into the distance toward some still more remote part of the city.

He wondered how long it would take the superautomata to repair A-Five. His sabotage had been very thorough and he rather thought the little machine was heading for the scrapheap. Then, feeling like a starving man suddenly confronted by a banquet, he began his examination of the city's wonders.

In the next five hours he paused only once to send the routine signal back to his friends. He wished he could tell of his success, but the risk was too great. After prodigies of circuit tracing he had discovered the functions of the main units and was beginning to investigate some of the secondary equipment.

It was just as he had expected. The thought analyzers and projectors lay on the floor immediately above, and could be controlled from this central installation. How they worked he had no conception: it might well take months to uncover all their secrets. But he had identified them and thought he could probably switch them off if necessary.

A LITTLE later he discovered the thought monitor. It was a small machine, rather like an ancient manual telephone switchboard, but very much more complex. The operator's seat was a curious structure, insulated from the ground and roofed by a network of wires and crystal bars. It was the first machine he had discovered that was obviously intended for direct human use. Probably the first engineers had built it to set up the equipment in the early days of the city.

Peyton would not have risked using the thought-monitor if detailed instructions had not been printed on its control panel. After some experimenting he plugged in to one of the circuits and slowly increased the power, keeping the intensity control well below the red danger mark.

It was as well that he did so, for the sensation was a shattering one. He still retained his own personality, but superimposed on his own thoughts were ideas and images that were utterly foreign to him. He was looking at another world, through the windows of an alien mind.

It was as though his body were in two places at once, though the sensations of his second personality were much less vivid than those of the real Richard Peyton III. Now he understood the meaning of the danger line. If the thought-intensity control were turned too high, madness would certainly result.

Peyton switched off the instrument so that he could think without interruption. He understood now what the robot had meant when it said that the other inhabitants of the city were sleeping. There were other men in Comarre, lying entranced beneath the thought-projectors.

His mind went back to the long corridor and its hundreds of metal doors. On his way down he had passed through many such galleries and it was clear that the greater part of the city was no more than a vast honeycomb of chambers in which thousands of men could dream away their lives.

One after another he checked the circuits on the board. The great majority were dead, but perhaps fifty were still operating. And each of them carried all the thoughts, desires and emotions of the human mind.

Now that he was fully conscious,

Peyton could understand how he had been tricked, but the knowledge brought little consolation. He could see the flaws in these synthetic worlds, could observe how all the critical faculties of the mind were numbed while an endless stream of simple but vivid emotions was poured into it.

Yes, it all seemed very simple now. But it did not alter the fact that this artificial world was utterly real to the beholder—so real that the pain of leaving it still burned in his own mind.

For nearly an hour, Peyton explored the worlds of the fifty sleeping minds. It was a fascinating though repulsive quest. In that hour he learned more of the human brain and its hidden ways than he had ever dreamed existed. When he had finished he sat very still for a long time at the controls of the machine, analyzing his new-found knowledge. His wisdom had advanced by many years and his youth seemed suddenly very far away.

For the first time he had direct knowledge of the fact that the perverse and evil desires that sometimes ruffled the surface of his own mind were shared by all human beings. The builders of Comarre had cared nothing for good or evil—and the machines had been their faithful servants.

It was satisfactory to know that his theories had been correct. Peyton understood now the narrowness of his escape. If he fell asleep again within these walls he might never awake. Chance had saved him once, but it would not do so again.

The thought-projectors must be put out of action, so thoroughly that the robots could never repair them. Though they could handle normal breakdowns, the robots could not deal with deliberate sabotage on the scale Peyton was envisaging. When he had finished Comarre would be a menace no longer. It would never trap his mind again, nor the minds of any future visitors who might come this way.

First he would have to locate the sleepers and revive them. That might be a lengthy task, but fortunately the machine level was equipped with standard monovision search apparatus. With it he could see and hear everything in the city, simply by focussing the carrier beams on the required spot. He could even project his voice if necessary, but

not his image. That type of machine had not come into general use until after the building of Comarre.

It took him a little while to master the controls and at first the beam wandered erratically all over the city. Peyton found himself looking into any number of surprising places and once he even got a glimpse of the forest—though it was upside down. He wondered if Leo were still around and with some difficulty he located the entrance.

Yes, there it was, just as he had left it the day before. And a few yards away the faithful Leo was lying with his head towards the city and a distinctly worried look on his face. Peyton was deeply touched. He wondered if he could get the lion into Comarre. The moral support would be valuable, for he was beginning to feel need of companionship after the night's experiences.

METHODICALLY he searched the wall of the city and was greatly relieved to discover several concealed entrances at ground level. He had been wondering how he was going to leave. Even if he could work the matter-transmitter in reverse, the prospect was not an attractive one. He much preferred an old-fashioned physical movement through space.

The openings were all sealed and for a moment he was baffled. Then he began to search for a robot. After some delay, he discovered one of the late A-Five's twins rolling along a corridor on some mysterious errand. To his relief, it obeyed his command unquestioningly and opened the door.

Peyton drove the beam through the walls again and brought the focus point to rest a few feet away from Leo. Then he called, softly:

"Leo!"

The lion looked up, startled.

"Hello, Leo—it's me—Peyton!"

Looking puzzled, the lion walked slowly round in a circle. Then it gave up and sat down helplessly.

With a great deal of persuasion, Peyton coaxed Leo up to the entrance. The lion recognized his voice and seemed willing to follow, but it was a sorely puzzled and rather nervous animal. It hesitated for a moment at the opening, liking neither Comarre nor the silently waiting robot.

Very patiently Peyton instructed Leo

to follow the robot. He repeated his remarks in different words until he was sure the lion understood. Then he spoke directly to the machine and ordered it to guide the lion to the control chamber. He watched for a moment to see that Leo was following. Then, with a word of encouragement, he left the strangely-assorted pair.

It was rather disappointing to find that he could not see into any of the sealed rooms behind the poppy symbol. They were shielded from the beam or else the focusing controls had been set so that the monovisor could not be used to pry into that volume of space.

Peyton was not discouraged. The sleepers would wake up the hard way, as he had done. Having looked into their private worlds, he felt little sympathy for them and only a sense of duty impelled him to wake them. They deserved no consideration.

A horrible thought suddenly assailed him. What had the projectors fed into his own mind in response to his desires, in that forgotten idyll from which he had been so reluctant to return? Had his own hidden thoughts been as disreputable as those of the other dreamers?

It was an uncomfortable idea and he put it aside as he sat down once more at the central switchboard. First he would disconnect the circuits, then he would sabotage the projectors so that they could never again be used. The spell that Comarre had cast over so many minds would be broken forever.

Peyton reached forward to throw the multiplex circuit breakers, but he never completed the movement. Gently but very firmly, four metal arms clasped his body from behind. Kicking and struggling, he was lifted into the air away from the controls and carried to the center of the room. There he was set down again and the metal arms released him.

More angry than alarmed, Peyton whirled to face his captor. Regarding him quietly from a few yards away was the most complex robot he had ever seen. Its body was nearly seven feet high, and rested on a dozen fat balloon tires.

From various parts of its metal chassis, tentacles, arms, rods and other less-easily-describable mechanisms projected in all directions. In two places,

groups of limbs were busily at work dismantling or repairing pieces of machinery which Peyton recognized with a guilty start.

Silently Peyton weighed up his opponent. It was clearly a robot of the very highest order. But it had used physical violence against him—and no robot could do that against a man, though it might refuse to obey his orders. Only under the direct control of another human mind could a robot commit such an act. So there *was* life, conscious and hostile life, somewhere in the city.

"Who are you?" exclaimed Peyton at last, addressing not the robot but the controller behind it.

With no detectable time-lag the machine answered in a precise and automatic voice that did not seem to be merely the amplified speech of a human being.

"I am the Engineer."

"Then come out and let me see you."

"You *are* seeing me."

It was the inhuman tone of the voice, as much as the words themselves, which made Peyton's anger evaporate in a moment and replaced it with a sense of unbelieving wonder.

There was no human being controlling this machine. It was as automatic as the other robots of the city—but unlike them and all other robots the world had ever known it had a will and a consciousness of its own.

CHAPTER VI

The Nightmare

AS Peyton stared wide-eyed at the machine before him, he felt his scalp crawling, not with fright but with the sheer intensity of his excitement. His quest had been rewarded—the dream of nearly a thousand years was here before his eyes.

Long ago the machines had won a limited intelligence. Now at last they had reached the goal of consciousness itself. This was the secret Thordarsen would have given to the world—the secret the Council had sought to suppress for fear of the consequences it might bring.

The passionless voice spoke again.

"I am glad that you realize the truth. It will make things easier."

"You can read my mind?" gasped Peyton.

"Naturally. That was done from the moment you entered."

"Yes, I gathered that," said Peyton grimly. "And what do you intend to do with me now?"

"I must prevent you from damaging Comarre."

That, thought Peyton, was reasonable enough.

"Suppose I left now? Would that suit you?"

"Yes. That would be good."

Peyton could not help laughing. The Engineer was still a robot, in spite of all its near-humanity. It was incapable of guile and perhaps that gave him an advantage. Somehow he must trick it into revealing its secrets. But once again the robot read his mind.

"I will not permit it. You have learned too much already. You must leave at once. I will use force if necessary."

Peyton decided to fight for time. He could, at least, discover the limits of this amazing machine's intelligence.

"Before I go, tell me this. Why are you called the Engineer?"

The robot answered readily enough.

"If serious faults develop that cannot be repaired by the robots, I deal with them. I could rebuild Comarre if necessary. Normally, when everything is functioning properly, I am quiescent."

How alien, thought Peyton, the idea of "quiescence" was to a human mind. He could not help feeling amused at the distinction the Engineer had drawn between itself and "the robots." He asked the obvious question.

"And if something goes wrong with you?"

"There are two of us. The other is quiescent now. Each can repair the other. That was necessary once, three hundred years ago."

It was a flawless system. Comarre was safe from accident for millions of years. The builders of the city had set these eternal guardians to watch over them while they went in search of their dreams. No wonder that long after its makers had died Comarre was still fulfilling its strange purpose.

What a tragedy it was, thought Pey-

ton, that all this genius had been wasted! The secrets of the Engineer could revolutionize robot technology, could bring a new world into being. Now that the first conscious machines had been built, was there any limit to what lay beyond?

"No," said the Engineer unexpectedly. "Thordarsen told me that the robots would one day be more intelligent than man."

It was strange to hear the machine uttering the name of its maker. So *that* was Thordarsen's dream! Its full immensity had not yet dawned upon him. Though he had been half prepared for it, he could not easily accept the conclusions. After all, between the robot and the human mind lay an enormous gulf.

"No greater than that between man and the animals from which he rose, so Thordarsen once said. You, Man, are no more than a very complex robot. I am simpler, but more efficient. That is all."

Very carefully Peyton considered the statement. If indeed man was no more than a complex robot—a machine composed of living cells rather than wires and vacuum tubes—still more complex robots would one day be made. When that day came the supremacy of man would be ended. The machines might still be his servants, but they would be more intelligent than his masters.

It was very quiet in the great room lined with the racks of analyzers and relay panels. The Engineer was watching Peyton intently, its arms and tentacles still busy on their repair work.

PEYTON was beginning to feel desperate. Characteristically the opposition had made him more determined than ever. Somehow he *must* discover how the Engineer was built. Otherwise he would waste all his life trying to match the genius of Thordarsen.

It was useless. The robot was one jump ahead of him.

"You cannot make plans against me. If you do try to escape through that door, I shall throw this power unit at your legs. My probable error at this range is less than half a centimeter."

One could not hide from the thought-analyzers. The plan had been scarcely half-formed in Peyton's mind, but the Engineer knew it already.

Both Peyton and the Engineer were equally surprised by the interruption. There was a sudden flash of tawny gold and half a ton of bone and sinew, traveling at forty miles an hour, struck the robot amidships.

For a moment there was a great flailing of tentacles. Then, with a sound like the crack of doom, the Engineer lay sprawling on the floor. Leo, licking his paws thoughtfully, crouched over the fallen machine.

He could not quite understand this shining animal which had been threatening his master. Its skin was the toughest he had ever encountered since a very ill-advised disagreement with a rhinoceros many years ago.

"Good boy!" shouted Peyton gleefully. "Keep him down!"

The Engineer had broken some of his larger limbs and the tentacles were too weak to do any damage. Once again Peyton found his tool-kit invaluable. When he had finished, the Engineer was certainly incapable of movement though Peyton had not touched any of the neural circuits. That, somehow, would have been rather too much like murder.

"You can get off now, Leo," he said when the task was finished. The lion obeyed with poor grace.

"I'm sorry to have to do this," said Peyton hypocritically, "but I hope you appreciate my point of view. Can you still speak?"

"Yes," replied the Engineer. "What do you intend to do now?"

Peyton smiled. Five minutes ago, he had been the one to ask that question. How long, he wondered, would it take for the Engineer's twin to arrive on the scene? Though Leo could deal with the situation if it came to a trial of strength, the other robot would have been warned and might be able to make things very unpleasant for them. It could, for instance, switch off the lights.

The glow tubes died and darkness fell. Leo gave a mournful howl of dismay. Feeling rather annoyed, Peyton drew his torch and twitched it on.

"It doesn't really make any difference to me," he said. "You might just as well switch them on again."

The Engineer said nothing. But the glow tubes lit once more.

How on earth, thought Peyton, could you fight an enemy who could

read your thoughts and could even watch you preparing your defenses? He would have to avoid thinking of any idea that might react to his disadvantage such as—he stopped himself just in time. For a moment he blocked his thoughts by trying to integrate Armstrong's omega-function in his head. Then he got his mind under control again.

"Look," he said at last, "I'll make a bargain with you."

"What is that? I do not know the word."

"Never mind," Peyton replied hurriedly, "My suggestion is this. Let me waken the men who are trapped here, give me your fundamental circuits and I'll leave without touching anything. You will have obeyed your builders' orders and no harm will have been done."

A HUMAN being might have argued over the matter, but not so the robot. Its mind took perhaps a thousandth of a second to weigh up any situation, however involved.

"Very well. I see from your mind that you intend to keep the agreement. But what does the word 'blackmail' mean?"

Peyton flushed.

"It doesn't matter," he said hastily. "It's only a common human expression. I suppose your—er—colleague will be here in a moment?"

"He has been waiting outside for some time," replied the robot. "Will you keep your dog under control?"

Peyton laughed. It was too much to expect a robot to know zoology.

"Lion, then," said the robot, correcting itself as it read his mind.

Peyton addressed a few words to Leo and, to make doubly sure, wound his fingers in the lion's mane. Before he could frame the invitation with his lips the second robot rolled silently into the room. Leo growled and tried to tug away, but Peyton calmed him.

In every respect Engineer II was a duplicate of its colleague. Even as it came toward him it dipped into his mind in the disconcerting manner that Peyton could never get used to.

"I see that you wish to go to the dreamers," it said. "Follow me."

Peyton was tired of being ordered around. Why didn't the robots ever say "please?"

"Follow me, please," repeated the ma-

chine, with the slightest possible accentuation.

Peyton followed.

Once again he found himself in the corridor with the hundreds of poppy-embossed doors—or a similar corridor. The robot led him to a door indistinguishable from the rest and came to a halt in front of it.

Silently the metal plate slid open and, not without qualms, Peyton stepped into the darkened room.

On the couch lay a very old man. At first sight he seemed to be dead. Certainly his breathing had slowed to the point of cessation. Peyton stared at him for a moment. Then he spoke to the robot.

"Waken him."

Somewhere in the depths of the city the stream of impulses through a thought-projector ceased. A universe that had never existed crumbled to ruins.

From the couch two burning eyes glowed up at Peyton, lit with the light of madness. They stared through him and beyond and from the thin lips poured a stream of jumbled words that Peyton could barely distinguish. Over and over again the old man cried out names that must be those of people or places in the dream world from which he had been wrenched. It was at once horrible and pathetic.

"Stop it!" cried Peyton. "You are back in reality now."

The glowing eyes seemed to see him for the first time. With an immense effort the old man raised himself.

"Who are you?" he quavered. Then, before Peyton could answer, he continued in a broken voice. "This must be a nightmare—go away, go away. Let me wake up!"

Overcoming his repulsion, Peyton put his hand on the emaciated shoulder.

"Don't worry—you are awake. Don't you remember?"

The other did not seem to hear him.

"Yes, it *must* be a nightmare — it must be! But why don't I wake up—Nyrán, Cressidor, where are you? I cannot find you!"

Peyton stood it as long as he could, but nothing he did could attract the old man's attention again. Sick at heart, he turned to the robot.

"Send him back."

CHAPTER VII

The Third Renaissance

SLOWLY the raving ceased. The frail body fell back on the couch and once again the wrinkled face became a passionless mask.

"Are they all as mad as this?" asked Peyton at length.

"But he is not mad."

"What do you mean? Of course he is!"

"He has been entranced for many years. Suppose you went to a far land and changed your mode of living completely, forgetting all you had ever known of your previous life. Eventually you would have no more knowledge of it than you have of your first childhood."

"If by some miracle you were then suddenly thrown back in time, you would behave in just that way. Remember, his dream-life is completely real to him and he has lived it now for many years."

That was true enough. But how could the Engineer possess such insight? Peyton turned to it in amazement, but as usual had no need to frame the question.

"Thordarsen told me this the other day while we were still building Comarre. Even then some of the dreamers had been entranced for twenty years."

"The other day?"

"About five hundred years ago, you would call it."

The words brought a strange picture into Peyton's mind. He could visualize the lonely genius, working here among his robots, perhaps with no human companions left. All the others would long since have gone in search of their dreams.

But Thordarsen might have stayed on, the desire for creation still linking him to the world, until he had finished his work. The two engineers, his greatest achievement and perhaps the most wonderful feat of electronics of which the world had record, were his ultimate masterpieces.

The waste and the pity of it overwhelmed Peyton. More than ever he was determined that, because the embittered

genius had thrown away his life, his work should not perish but be given to the world.

"Will all the dreamers be like this?" he asked the robot.

"All except the newest. They may still remember their first lives."

"Take me to one of them."

The room they entered next was identical with the other, but the body lying on the couch was that of a man of no more than forty.

"How long has he been here?" asked Peyton.

"He came only a few weeks ago—the first visitor we had for many years until your coming."

"Wake him, please."

The eyes opened slowly. There was no madness in them, only wonder and sadness. Then came the dawn of recollection, and the man half rose to a sitting position. His first words were completely rational.

"Why have you called me back? Who are you?"

"I have just escaped from the thought-projectors," explained Peyton. "I want to release all who can be saved."

The other laughed bitterly.

"Saved! From what? It took me forty years to escape from the world, and now you would drag me back to it! Go away and leave me in peace!"

Peyton would not retreat so easily.

"Do you think that this make-believe world of yours is better than reality? Have you no desire to escape from it at all?"

Again the other laughed, with no trace of humor.

"Comarre is reality to me. The world never gave me anything, so why should I wish to return to it? I have found peace here and that is all I need."

Quite suddenly Peyton turned on his heels and left. Behind him he heard the dreamer fall back with a contented sigh. He knew when he had been beaten. And he knew now why he had wished to revive the others.

It had not been through any sense of duty, but for his own selfish purposes. He had wished to convince himself that Comarre was evil. Now he knew that it was not. There would always be, even in Utopia, some for whom the world had nothing to offer but sorrow and disillusion. They would be fewer and fewer with the passage of time.

In the dark ages of a thousand years ago most of mankind had been misfits of some sort. However splendid the world's future, there would still be some tragedies and why should Comarre be condemned because it offered them their only hope of peace?

He would try no more experiments. His own robust faith and confidence had been severely shaken. And the dreamers of Comarre would not thank him for his pains.

He turned to the Engineer again. The desire to leave the city had grown very intense in the last few minutes, but the most important work was still to be done. As usual, the robot forestalled him.

"I have what you want," he said. "Follow me, please."

It did not lead, as Peyton had half expected, back to the machine levels with their maze of control equipment. When their journey had finished, they were higher than Peyton had ever been before, in a little circular room he suspected might be at the very apex of the city. There were no windows, unless the curious plates set in the wall could be made transparent by some secret means.

It was a study and Peyton gazed at it with awe as he realized who had worked here many centuries ago. The walls were lined with ancient textbooks that had not been disturbed for five hundred years. It seemed as if Thordarsen had left only a few hours before. There was even a half-finished circuit pinned on a drawing board against the wall.

"It almost looks as if he were interrupted," said Peyton, half to himself.

"He was," answered the robot.

"What do you mean? Didn't he join the others when he had finished you?"

It was difficult to believe that there was absolutely no emotion behind the reply, but the words were spoken in the same passionless tones as everything else the robot had ever said.

"When he had finished us Thordarsen was still not satisfied. He was not like the others. He often told us that he had found happiness in the building of Comarre. Again and again he said that he would join the rest, but always there was some last improvement he wanted to make. So it went on until one day we

found him lying here in this room. He had stopped. The word I see in your mind is death, but I have no thought for that."

Peyton was silent. It seemed to him that the great scientist's ending had not been an ignoble one. The bitterness that had darkened his life had lifted from it at the last. He had known the joy of creation. Of all the artists who had come to Comarre, he was the greatest. And now his work would not be wasted.

The robot glided silently toward a steel desk and one of its tentacles disappeared into a drawer. When it emerged it was holding a thick volume, bound between sheets of metal. Wordlessly it handed the book to Peyton who opened it with trembling hands. It contained many thousands of pages of thin, very tough material.

Written on the flyleaf in a bold, firm hand were the words:

Rolf Thordarsen
Notes on Subelectronics
Begun: Day 2, Month 13, 2598.

Underneath was more writing, very difficult to decipher and apparently scrawled in frantic haste. As he read, understanding came at last to Peyton with the suddenness of an equatorial dawn.

To the reader of these words:

I, Rolf Thordarsen, meeting no understanding in my own age, send this message into the future. If Comarre still exists, you will have seen my handiwork and must have escaped the snares I set for lesser minds. Therefore you are fitted to take this knowledge to the world. Give it to the scientists and tell them to use it wisely.

I have broken down the barrier between Man and Machine. Now they must share the future together."

Peyton read the message several times, his heart warming toward his long-dead ancestor. It was a brilliant scheme. In this way, as perhaps in no other, Thordarsen had been able to send his message safely down the ages, knowing that only the right hands would receive it. Peyton wondered if this had been Thordarsen's plan when he first joined the Decadents or whether he had evolved it later in his life. He would never know.

He looked again at the Engineer and thought of the world that would come when all robots had reached conscious-

ness. Beyond that he looked still farther into the mists of the future.

The robots' need had none of the limitations of man, none of his pitiful weaknesses. It would never let passions cloud its logic, would never be swayed by self-interest and ambition. It would be complementary to man.

Peyton remembered Thordarsen's words, "Now they must share the future together."

P EYTON stopped his daydream. All this, if it ever came, might be centuries in the future. He turned to the Engineer.

"I am ready to leave. But one day I shall return."

The robot backed slowly away from him.

"Stand perfectly still," it ordered.

Peyton looked at the Engineer in puzzlement. Then he glanced hurriedly at the ceiling. There again was that enigmatic bulge under which he had found himself when he first entered the city such an age ago.

"Hey!" he cried, "I don't want—"

It was too late. Behind him was the dark screen, blacker than night itself. Before him lay the clearing, with the forest at its edge. It was evening, and the sun was nearly touching the trees.

There was a sudden whimpering noise behind him: a very frightened lion was looking out at the forest with unbelieving eyes. Leo had not enjoyed his transfer.

"It's all over now, old chap," said Peyton reassuringly. "You can't blame them for trying to get rid of us as quickly as they could. After all, we did smash up the place a bit between us. Come along—I don't want to spend the night in the forest."

* * * * *

On the other side of the world, a group of scientists was dispersing with what patience it could, not yet knowing the full extent of its triumph. In Central Tower, Richard Peyton II had just discovered that his son had not spent the last two days with his cousins in South America, and was composing a speech of welcome for the prodigal's return.

Far above the Earth the World Council was laying down plans soon to be swept away by the coming of the Third

Renaissance. But the cause of all the trouble knew nothing of this and, for the moment, cared less.

* * * * *

Slowly Peyton descended the marble steps from that mysterious doorway whose secret was still hidden from him. Leo followed a little way behind, looking over his shoulder and growling quietly now and then.

Together, they started back along the metal road, through the avenue of stunted trees. Peyton was glad that the sun had not yet set. At night this road would be glowing with its internal radioactivity and the twisted trees would not look pleasant silhouetted against the stars.

At the bend in the road he paused for awhile and looked back at the curving metal wall with its single black opening whose appearance was so deceptive. For a moment all his feeling of triumph seemed to fade away. He knew that as long as he lived he could never forget what lay behind those towering walls—the cloying promise of peace and utter contentment.

Deep in his soul he felt the fear that any satisfaction, any achievement the outer world could give might seem vain beside the effortless bliss offered by

Comarre. For an instant he had a nightmare vision of himself, broken and old, returning along this road to seek oblivion. He shrugged his shoulders and put the thought aside.

Out on the open plain his spirits rose swiftly. He opened the precious book once more and ruffled through its pages of microprint, intoxicated by the promise that it held. Ages ago the slow caravans had come this way, bearing gold and ivory for Solomon the Wise. But all their treasure was as nothing beside this single volume and all the wisdom of Solomon could not have pictured the new civilization of which it was to be the seed.

Presently Peyton began to sing, something he did very seldom and extremely badly. The song was a very old one, so old that it came from an age before atomic power, before interplanetary travel, even before the coming of flight. It had to do with a certain hairdresser in Seville, wherever Seville might be.

Leo stood it in silence for as long as he could. Then he too joined in. The duet was not a success.

When night descended, the forest and all its secrets had fallen below the horizon. With his face to the stars and Leo watching by his side, Peyton slept well.

This time he did not dream.



Outside the world of science, Jeff Benson was a man of no importance until he stumbled on an error in the law of conservation of energy—in

FIRE IN THE HEAVENS, an astonishing complete novel

by **GEORGE O. SMITH** which is only one of the

many unusual fiction headlines in

the July issue of our compen-

ion magazine—

STARTLING STORIES

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ANY diagrammatic presentation of the time concept must perforce be a simplification. Time is neither pulsations nor is it a winding river nor yet coiled upon itself like a spring. To best understand it and to free it of metaphysical confusions we must revert a full five thousand years to the basic Einstein conjectures, many of them

(*Greek word meaning capable of throwing a shadow in either direction)

since disproven in the mighty laboratory of stellar space. Draw two lines intersecting. An X. Where they cross is the "now".

The upper half is the past, the lower half the future.

Both the understandable past and the foreseeable future are severely limited by the sides which form a crude, angular hour-glass. The sidelines represent the speed of light, the infinite Fitzgerald

Four people, plucked out of time at the instant of dying, become hunted beings in a grim game whose object is their second death!

by **JOHN D. MacDONALD**



Contraction, the bitter barrier of existence.

Each soul is a grain of sand in this hour-glass, but suspended forever at the point of "now". Since the origin of this concept twenty-five generations of experimentation have proved that man, pinned in the focal point of existence, can move timewise neither up into the past nor down into the future.

Thus it has been conceded that escape from this trap of time, from the jaws of inevitability, lies in the possibility of a LATERAL movement, which, of course, assumes a penetration of the barrier of the speed of light.

Assuming the possibility of lateral movement, this movement could thus be reversed and the person which had existed for a moment OUTSIDE the time barrier would return at an alien focal point, thus completing the illusion of a "journey" within time.

All this is, of course, a simplification so extreme as to render the entire exposition almost meaningless.

"Narración de Viajes en Tiempo"—Agabanzo
Historical Collection — Martian Micro-library

CHAPTER I

Four Are Chosen

HOWARD LOOMIS glanced down at the dashboard clock and cursed the long-winded customer who had delayed him for over two hours. His sample cases packed the back seat. He had already reported to the sales manager that he would spend the night in Alexandria, seventy miles away.

He yawned, lit a cigarette and ran the window down, hoping the cold air would keep sleep away. He was a thin and nervous young man with a mobile mouth, a receding hairline and driving ambition.

He began to think of the prospects in Alexandria then as sleep welled up over him. His hands relaxed on the wheel. He awakened with a start as his front right wheel went off onto the shoulder. The big car swerved and he fought it back under control.

It was a clear cold night—below freezing. It had rained during the afternoon but the road was dry.

He decided to increase his speed, depending on the added responsibility to keep him awake.

In the white glow of his headlights he saw a bridge ahead—a bridge over railroad tracks.

The tires whined on the concrete, changed tone as they hit the steel tread of the bridge.

The bridge was coated with thin clear ice.

As the back end began to swing Howard Loomis bit down on his lower lip, fighting both panic and sheer disbelief that this could be happening to him.

The back end swung in the other direction and there was a grinding smash as it tore through the side railing.

The big car tipped. Howard Loomis caught a glimpse of the steel tracks far below. Ridiculously the thought that he could not live through the fall was intermingled with the thoughts of the potential customers in Alexandria.

There was the spinning silence of the fall, the sickening lunge through space, and . . .

* * * * *

The third show was coming up and she knew that it would be rough and unpleasant. During the second show a drunk who fancied himself a comic, after chanting, "Take it off!" had come out onto the floor to offer assistance. There would be more drunks for the third show.

Her name was Mary Callahan—Maurine Callaix on the bill—and she was a tall girl with the blue-black hair, milky skin and blue eyes of her race.

She was checking the concealed hooks in her working dress when Sally, the new singer, came into the dressing room and stood watching her.

"How can you do it, Mary?" she asked.

"Do what, kid?"

"I mean, get out there in front of all those people and—"

Mary smiled tightly. "It's just a business. I was the gal who was going to knock them dead in ballet. But I grew too big. It doesn't bother me any more."

Sally looked at her, shook her head and said, "I could never do it."

Mary Callahan stared at the smaller girl for a moment. Mary Callahan thought of the last three years, of the ten months' hospital bill her mother had accumulated while dying, of the money

for milk and meat and bread for the twin nephews.

"I hope you don't have to do it. Ever."

"How about Rick?" Sally asked.

MARY CALLAHAN frowned. "The guy worries me. I don't know what gave him the idea that I was his prize package. He's a hophead, dearie. He stopped me at the door tonight and I had to slap him across the teeth to get by him."

"Was that safe?" Sally asked.

"He hasn't got the nerve to try anything. I hope."

She got the call and went on, pausing just off the floor for the blue spot to pick her up, then walking on in a slow half dance to the sultry beat of the tom-tom, wearing the mechanical lascivious smile, reaching gracefully for the first concealed snap on the evening gown.

When Rick came into the glow of the spot the music faltered and stopped.

Mary Callahan watched his hand, watched the gun.

Suddenly she knew that he would shoot. She saw his pinpoint pupils, the twisted mouth, the stained teeth.

She saw the gun come up. She looked down the barrel, saw his finger whiten on the trigger, saw the first orange-red bloom of the flower of death and . . .

* * * * *

Joe Gresham padded across the I beam, his eyes fixed on the upright opposite him. He had learned three years before that when you're on the high iron you never look at your feet. Because then you'd see the cars below, like beetles, the people like small slow bugs, and something would happen to your stomach.

He was a sun-hardened man, with wide shoulders, knotted hands and an impassive though good-humored face.

Above him he heard the rivets clanking into the bucket, the buck of the hammer. The sun was bright.

When he heard the shout, he stopped dead. The red-hot rivet struck him just above the right ear.

For long seconds he fought for balance, gave up, tried to drop in such a way that his hands would clasp the girder on which he had been walking.

But he had waited too long, and his hands merely slapped the girder.

He spun down through the warm

morning air and it was as though the earth spun slowly around him. Each time he saw the street it was startlingly closer. And as he fell he thought, "This isn't happening to me. This can't be the end of Joe Gresham!"

And . . .

* * * * *

Stacey Murdock took three more smooth crawl strokes, rolled over onto her back and looked back at the lake shore, at the vast white house, the wide green lawns.

She grinned as she wondered if the two muscle-men her father had hired were still sitting in the house waiting for her to get up. Nothing could be more ridiculous than Daddy's periodic kidnaping scares. Why kidnaping was out of fashion! Even when the gal in question would one day inherit more millions than she had fingers and toes.

Stacey was a trim, small girl with pale blond hair, a rather sallow face and a wide, petulant mouth.

The party last night had been a daisy. The cold water of the lake felt good. Best thing in the world for a hangover.

She had climbed down, dressed in a terricloth robe, from the terrace outside her bedroom window. She could see the robe on the dock, glinting white in the sun.

It was so much more pleasant to swim without a suit.

Her soaked hair plastered her forehead. She pushed it aside, rolled over and began her long, effortless crawl out into the big lake. The waves were a bit higher way out and sometimes when she rolled her face up to breathe, one would slap her in the face.

Suddenly she felt the churn of nausea. The hangover was worse than she thought. But messy to be sick out in the water like this.

She floated for a time as the feeling got worse. When the paroxysms started, she doubled over, unable to catch her breath, unable to straighten out. She coughed under water and it made a strange bubbling by her ears. Then, stupidly, she had to breathe and she strangled on the water she was sucking into her lungs.

She had no idea where the surface was, and she was climbing up an endless green ladder with arms as limp as wet cloth and then there was a softness of

music in her ears and it was so much easier and more delicious just to lie back and relax and sleep and . . .

* * * * *

It was Baedlik who first penetrated the barrier of the speed of light. The feat was not performed, as one might suppose, in the depths of space but in his laboratory in London. By bombarding the atoms of Baedlium with neutrons, he so increased the mass and attraction of the nuclei that the outer rings of electrons, moving at forty thousand miles per hour, were drawn in toward the nuclei, their speed proportionately increasing.

This decreased the dead space within the atom, resulting in an incredibly heavy material. When the speed of the outer rings passed the speed of light, the samples of Baedlium, to all intents and purposes, naturally ceased to exist at Baedlik's focal point.

This, for over seventy years, was called Baedlik's Enigma, until the lateral movement in time was explained by Glish, who also set forward the first set of formulae designed to predict and control this lateral movement.

Ibid

CHAPTER II

The Watching Boxes

HOWARD LOOMIS did not have, in his background or experience, any comparable sensation. One moment every fibre of his body was tensed in vain effort to withstand the smash which would tear soul from body.

And, without transition, he lay on a gentle slope, still curled in a seated position, and the air that was cold was warm the night that was dark was suddenly a new day.

He sat up, still dressed in gray conservative suit, snap-brim hat, buttoned topcoat. His trembling hands rested against the grass. **Or** was it grass? It was not a proper **green**, having a bluish cast mixed with it.

Seventy feet away a fairytale forest cast a heavy shadow—mammoth trunks, roots like broken fingers, crowns as high

as redwoods, reaching up toward a sky that was too blue. It was a purple blue. The disk of the sun was wide and in its yellow-glare was a tinge of blood.

Breathing hard, he scrambled to his feet, turning, looking around him, seeing nothing but the expanse of grass, a ragged outcropping of rock that glinted silver, the side of a hill that restricted his horizon.

There was no sign of car, bridge or tracks. And, after the first few seconds, he did not look for any. This was alien, this world. The air was thin, as on a high mountain and to have seen in this place his car or any fragment of the world he knew would have been as grotesque an anachronism as his own presence.

He listened and heard the distant sound of birds. The air was sweet with the scent of sun-warmed grasses.

Howard Loomis dropped to his knees.

His hat rolled away, unheeded. He ran thin fingers through his thinning hair and thought about delirium, Valhalla and death.

He took off his topcoat and threw it aside. He fingered the fabric of his familiar suit, hoping to gain from the touch of the smooth weave a surer grasp on reality. He looked at his sleeve, saw the place where the weaver had fixed the cigarette burn in Baltimore.

He spun to his feet as she coughed.

She was a tall girl in a wine evening dress. Her blue eyes were wide with fear and she stood, her hands at her throat. She looked at something in the air in front of her which did not exist.

"*Rick!*" she gasped.

Howard Loomis began to laugh. He couldn't control it. He fell onto his hands and knees and laughed until the tears dripped ridiculously from the end of his sharp nose.

"Too—too much," he gasped. "Now bring on the—golden harps."

"Who are you calling a harp?" the girl snapped.

The sound of her angry voice snapped him out of it. He stared at her in silence. "Where is this place? Who are you?"

"Those are my lines, mister."

"I can't tell you where we are, but I'm Howard Loomis. I sell Briskies. I skidded off a railroad bridge but I don't remember hitting the bottom. I ended up right here."

"You don't belong here?" she asked.

"Do I look it? In this decorator's nightmare am I part of the decor?"

"No," she said. "You're the Junior Chamber of Commerce type. You and blue trees don't mix. I'm Mary Callahan. I was starting my strip when a hoppie named Rick walked up and shot me right between the eyes. At least that was where he was aiming. I saw him pull the trigger but I didn't feel it hit."

She reached an unsteady hand up and touched her smooth forehead between her eyebrows with her fingertips.

He took out his cigarettes. She came over and sat down beside him. They smoked in silence.

"Oh, great!" Mary Callahan said.

"Meaning that it's tougher on you than on the common people? Let's take a hike around this glamour pasture and see where we are?"

"In these?" she asked, holding out a slim foot encased in a silver sandal with a four inch heel. "You walk. I'll wait."

He shrugged. When he was forty feet from her, walking toward the hill, she said, "Hey! Howie! Don't look now but there's something floating over you."

He looked up quickly and his mouth sagged open. It was a little metal box about the size of a cigar box. A fat lense protruded from the bottom of it. It had no visible means of support. Howard stepped quickly to one side. So did the box.

In sudden anger he picked up a rock and threw it at the box.

The rock sailed up, passed through the space where the box had been and continued on.

He turned and looked with exasperation at Mary Callahan. He cocked his head on one side, said, "Hmmm. You have one too."

Fear of the unknown drove them together. Mary Callahan, in her high heels, topped him by two inches, yet she clung to his arm as she stared upward. The two boxes were twenty feet over their heads, drifting quietly side by side.

"They—they're watching us!" said Mary Callahan.

And he knew that she was right. The lenses were cool observant eyes.

"This I'm not going to like," she said grimly. "In spite of my profession I'm a girl who rather likes her privacy. I don't want to be watched, even by floating cameras."

SHE waited while he went down the slope, struggled up the steep hill. Tough brush aided him as did the outcroppings or rock. At last he gained the summit. He looked out over wild country. There were more forests, a wide river in the distance and several semi-flat expanses which he judged to be covered by grass at least ten feet high. He saw no sign of human habitation.

He turned and looked back. The wine dress was brilliant against the blue-green grass. He saw her wave up at him. He started down the hill. She met him at the foot of the hill.

"Howie, did you bring any of those Briskies? They sound as if you eat them. Or are they whiskbrooms? About this time of night—or is it day—I yonk on a steak sandwich."

They both turned as a heavy weight crashed into the top of a small tree. The branches writhed and cracked and a powerful young man dressed in working clothes plummeted down, hitting on the slope, rolling almost to their feet.

He sat up, looked straight up in the air, said, "Heavenly Mary Jane! Where's the building?"

"You lose a building?" Mary Callahan asked sweetly. "I lost a night club and Howie, my pal here, he lost a car and a railroad bridge."

Joe Gresham stared at her, got slowly to his feet, testing arms and legs. He looked around at the landscape, glared at Howard Loomis, looked up again, recoiled as he saw the silver box with lense floating over his head.

"Whassat?" he gasped.

"Oh, we all wear them here. De riguer, you know," Mary answered. "I assume that you fell off a building. You want the pitch?"

"Pitch? You mean you can tell me what happened?" Joe asked.

"Oh, it's very simple," Mary said. "The fall killed you."

Joe Gresham sat down. He tilted his head on one side and peered at Howard. "Where'd you get this crazy dame?"

"Her name is Mary Callahan and I'm Howard Loomis and we both got here almost the same way you did. If she's crazy, so am I. I haven't said it out loud before but we're all dead. Mary was shot through the head. I went off a bridge. What floor did you fall from?"

"About the forty-first. And my name is Joe Gresham."

"Joe, how many people do you know that fell from the forty-first floor and didn't break even a finger."

Joe took out a bandanna and wiped his sunburned brow. He said softly, "Al Brunert fell off the top of the tool house and busted his arm and a pint of drinking liquor. You win, pal."

"And *what* do I win? Joe, is this any part of earth you ever heard about?"

Joe took another look around. He stood up and said, "They got the wrong colors here. And that sun is too big and I never seen rocks that look like they're all metal. I don't want to sound like a dope, folks, but is this heaven?"

Mary said, "A—I haven't been a very good girl. B—I don't think you get hungry in heaven. C—This isn't exactly a heavenly dress I've got on."

"Then it's hell," Joe said firmly.

"Don't be so dogmatic," Mary said briskly. "Maybe they've got three deals."

As she spoke Joe took hold of her arm so hard that she gasped. He spun her around and pointed with a big calloused hand. And he whistled softly. "Heaven it might be," he said.

The girl was on the grass twenty feet away, gasping and choking. She was a slightly sallow blonde with a honey tan—all over. Her hair was soaked.

"She represents the ultimate in my profession," Mary said.

The girl sat up, hugged herself and glared at them out of streaming eyes. "Well—do something!" she rasped between coughs.

HOWARD ran and got his discarded topcoat. Keeping his eyes carefully averted, he held it for the blonde. Mary watched her as she slipped into the coat, buttoned it around her. Mary said, appreciatively, "Sister, you ever want to change your line of work, I can give you the address of my agent."

The blonde stamped her foot on the grass. As it was a bare foot and as she managed to stamp it on a pebble, the gesture was ineffectual. She yelped with pain and hopped on one foot, holding the other.

The three stood and watched her.

Stacey Murdock said, "Get in touch with my father immediately. He's T. Winton Murdock. I'm Stacey Murdock. The Stacey Murdock. He'll be worried about me."

They still stared.

She raised her foot to stamp it again, thought better of it. "Didn't you cretins hear me? I insist that you get in touch with my father. He'll be worried. He'll pay you thugs whatever you ask."

Mary nodded, said in an aside to Howard, "You ask me, I think she drowned. Swimming raw too."

"This is no time for silly jokes," Stacey said. "I passed out and you pulled me out of the water and brought me here. Daddy has the note you wrote him."

Howard said tiredly, "I gather that you think we've kidnapped you. Look around, Miss Murdock. Take a good look."

Stacey took a long look and swallowed hard. "This is—a funny place," she said weakly.

"Ha, ha!" said Mary Callahan. "Funny."

"I detest oversized women," Stacey said briskly. She smiled at Joe. "Now you look like a good earthy type. Tell me where I can find a phone."

Joe pointed at his tree. "Lady, I just fell out the tops that tree. I don't know my way around."

Stacey gave him a dazzling smile. "Now I get it," she said. "They rescued me and I'm still delirious from the shock. You are all figments of my shocked imagination."

Mary grinned tightly. "Figments, eh. Then we can't hurt you a bit?"

"Of course not," Stacey said.

Mary straightarmed Stacey in the forehead with the heel of her hand. Stacey sat down. "Just a love pat from an oversized woman, dearie."

Howard and Joe had to combine forces to pry them apart.

When they had calmed Stacey down they pointed out the floating boxes. She made a tiny bubbling sound. Howard caught her as she fell. He carried her over to the shade of a tree. She was wonderfully light in his arms.

Mary said bleakly, "I'm still starving."

"Could eat something myself," Joe admitted.

Howard shaded his eyes and looked at the sun. "If that sun moves as fast as the one we're used to, kids, we've got two hours to find food, water and a place to sleep."

Mary took off her shoes and hurled them off into the brush. "Better sore feet than a busted ankle. Wake up your dreamboat and we'll trudge."

Ten years after the death of Glish it was O'Dey, expanding the group of basic materials subject to the Baedlik Enigma, who first managed to test the formulae propounded by Glish. His experiments attracted the attention of the original Planet Foundation, which assigned the Third Integrated Research Team to the task.

Forty-one years after the Third Integrated Research Team took over the task, a method was perfected whereby recording apparatus could be sent to any specific segment of the past after the exact position of the planet in question had been computed.

During the period when the histories of the planets were being rewritten the first basic rules of time travel were being determined, largely by trial and error.

The first truth to come to light was that no specific alteration can be made in the past. By alteration is meant any specific action which, by itself, will cause reactions and interactions that, like a pebble dropped in a pool, might cause alterations in the future.

The second truth to be exposed was that, as the future pre-exists in the variabilities of the present, no travel into the future for prognostic purposes can be made.

Ibid

CHAPTER III

Harvest of Bones

MARY CALLAHAN sat on the river bank at dawn and smiled beatifically as she held her bruised feet in the cold water.

She half turned, then relaxed as Howard Loomis came up and sat beside her. In four days Howard had changed a great deal. He had grown more nervous and his hands shook uncontrollably.

"We need food," he snapped, "and rather than sitting here, crooning to your feet, you could be fishing. Stacey found more grubs last night."

"You bore me, Howie," she said, yawning. She looked ruefully at the insect bites on her bare arms. She had torn off the wine dress at knee level. She wondered if she could make crude sleeves from the extra portion of fabric.

"You don't seem to care what happens to us," Howie snapped.

"Kid, you're losing your sense of humor. I haven't had a rest like this in four years. I'm enjoying it. Besides, who was it found out those berries were good to eat?"

"They might have killed you."

She looked at him. "Again?" she asked softly.

Howard shuddered, glanced up at the two silver boxes. At least they went away at nightfall. "I don't feel dead," he said.

"Where's Joe?"

"Puttering around with that fire of his. Trying to burn rocks."

"And the princess?"

"She's still sleeping. And since you brought it up, Mary, I think you could be nicer to her." He waved his hand aimlessly at the surroundings. "She's delicate. All of this is a shock to her. She can't stand the environment the way we can."

Mary smiled without warmth. "The way we men can? Don't be a sucker, Howie. She's as tough as nails. She's just lazy. No work, no eat, I always say."

Howard snorted in disbelief and wandered away.

By concerted effort, they had three fish by lunch time. They were cleaned with Joe's pocket knife, spitted on green twigs and cooked over the flames.

And it was at lunch that Joe showed them the arrowheads he had made.

"For vampires," he said.

When they looked puzzled he said, "Those shiny rocks are silver, I think. Anyway I melted these into a stone mold. I'm cutting a slice off my belt for a bowstring. Find me a dead bird's feathers and boom—I got something to use so maybe I can kill one of those little antelopes—the ones that hide out in that big grass."

"You're okay, Joe," Mary said.

Stacey sniffed and Howard reached over and patted her shoulder. It was then that he propounded his theory of heading for a low line of hills in the distance. He said he thought he saw sun glint on rock and, if so, there might be some nice dry caves there, out of the rain that came each night to make them miserable. They had found, according to Howard's watch, that it was only seven hours from dawn to dusk, that

the night was not quite six hours long. Thus it might take two or maybe three days to get to the hills.

Stacey cast the only negative vote.

It took five days to reach the hills. And two more days to find the caves.

Four footsore and weary people stood at the base of the cliff and looked up. Joe Gresham had the haunch of a deer, wrapped in bluish leaves, slung over his shoulder.

He carried a sturdy bow and three notched arrows in his hand.

Stacey, using thorns and a patience that had elicited Mary's first speck of admiration for her, had made a rather neat costume, shorts and a halter, of the hide of the tiny antelope-like beast. Howie had made a crude knapsack from the topcoat and, when Stacey discovered that her new costume was beginning to smell rather high, it was too late.

Mary noticed with amusement that Howard did not stay as close to Stacey as usual.

Joe had begun to develop an almost animal awareness of his surroundings. And thus it was Joe who saw the length of whitened bone protruding from the thorn brush at the base of the cliff.

Stacey refused to look. Mary, Howard and Joe stared down at the skeleton. It had worn a hide garment. An axe with a stone blade lay under the skeletal arm.

Joe bent over, picked it up, hefted it. "This we can use," he said.

"But don't you see?" Mary exclaimed. "There are people in this screwy world. Honest-to-God people!"

"You missed something," Howard said in a flat voice.

She gave him a quick glance. He was pale. She looked back at the body, saw the glint of metal. It was a fifty-cent piece, tarnished. A hole had been bored through it and it was on a greasy thong around what had been a neck.

She shut her teeth hard, bent over and looked closely at it. Then she straightened up, screamed and fell back against Joe. He steadied her.

Howard looked closely and said, "Joe, it's a U.S. coin all right. But it has a head on it I don't recognize. And the date is nineteen hundred seventy-one."

Joe gave him a puzzled smile. "But nineteen - hundred seventy - one don't come along, pal, for another—lemme see—twenty-one years."

"What killed him, Joe?" Mary said.

JOE took a long look. Then he turned and looked up at the cliff. He shook his head. "Thought first he fell. But he's too far out. No, something gave him a bash over the ear, caved his head in."

They found three more before nightfall. And one wore a shirt of chain mail, badly rusted.

The fire was in the mouth of the big cave. Howard was the spokesman. They sat back inside the cave, on stones that they had found there, arranged in a half circle, as though they had been used before in just that manner.

"Howard said, 'We've got to get our heads together. We've been here four days now and we've found—how many bodies, Joe?'"

"Seventeen. Fourteen old ones and three fresh ones. Fairly fresh ones."

Mary shivered.

Howard continued. "I'm no historian, folks, but I've been looking at the stuff those people had. Clothes, for example. Now they either came fresh out of a costume play or else they landed here right out of their own world. Understand, I'm just thinking out loud. We've seen only a little part of this country. At the rate we found bodies here they must be all over the place."

"We don't know what the score is. We do know that we can feel hunger and cold and pain—and if these bodies are any proof, we can be killed—even if it is for the second time. I want to stay living if only to find out what this is all about. Agreed?"

The other three nodded.

"Now something killed all these people, Joe, you take it."

"Well, I'd say the most of them got their heads bashed but the fresh ones were carved up a little by something sharp. Not teeth or claws—a little sword, maybe, or a big knife."

"Thanks, Joe. That means there's danger here. I don't think all these people killed each other off. It would have been a help if some of them had written down what was after them."

"Or written it down so we could read it," Joe said grumpily.

"What do you mean?" Howard asked sharply.

"Oh, didn't you see that funny lingo scratched on the wall back there? About twenty feet back into the cave?"

Howard cursed softly, lit a torch and hurried back, Mary and Stacey follow-

ing him. He found the markings. The flickering flame lighted it.

"Modern French," Stacey said. "Here goes—I am the one who remains. They came at dawn to hunt us. The shining men. The others, my comrades, have fallen. We killed one. They took away the body, but our dead are—are—" She faltered.

"Unburied," Mary said briskly. "I do not expect to survive the morrow. It is a strange existence in which one must die twice." And signed by a character named Lerault."

"How do you—?" Stacey said.

"Education isn't restricted to the upper classes, darling," Mary said.

"Stop that eternal bickering!" Howard yelled. They went back to the fire.

When the flames died down, Joe replenished the blaze.

Mary said softly, "Shining men. Gold your lerns, boys. Tomorrow the battle."

"Shut up!" Howard said, a note of hysteria in his voice.

"Don't let her bother you, darling," Stacey said softly. She took Howard by the arm and the two of them went back into the cave into the darkness.

Joe spat onto the fire. "I was reading once," he said, "or maybe it was a movie or maybe TV. I forget. Anyway, they got this place where they stock it with animals and then if you're a very special guy with a big roll, they let you in there to hunt once in a while.

"Very sharp, Joe," Mary said. "We're thinking alike. Me, I'm going to give them a hell of a time. I know a place where nobody can come up with me plumping rocks down on their heads."

Joe, his voice softer, said, "I should a met you a long time ago, Mary. You got guts."

"Listen to the sweet talk."

Joe stirred restlessly, his voice growing husky. "Kid, on account of maybe this is our last night and—"

"Not so sharp, Joe. Don't let the princess give you wrong ideas. On account of this might be our last night, I'll stay up an hour later and we can have a nice talk."

Universe organization collapsed when Adolph Kane, egomaniac supervisor of the colonies near Sirius and Alpha Centauri, built a war fleet in secret and, after ten years of bitter warfare wiped out all organized resistance on the part

of the Planet Foundation.

Within fifteen more years he controlled all of the civilized universe, having subjugated the colonies in the Regulus, Fomalhaut, Pollux, Aldebaran, Altair, Procyon, Arcturus and Capella Sectors. He established new colonies near Archermar, the furthest mankind had yet been from Mother Earth.

He called himself Emperor, built on the gray planet, Lobos, a mighty palace and fortress, protected by the impenetrable ring of satellite warships.

In the shining palace he begat the sons who carried his name and his authority. During three hundred years of the reign of the line of Kane, research for the sake of knowledge ceased to exist. All research was channeled toward the single goal of making the Empire immune to attack, both from within and from without—for men yet feared the possibility of intelligent and warlike races in some yet unconquered corner of the universe.

Yet mankind benefited from the single-minded lust for power of the Empire, for it was through the insistence of the Kanes that the mighty space-ships plunged through the barrier of the speed of light with the lateral time movement aberration cancelled down to the point where it was so slight as to be recorded only by the most delicate instruments.

And the Empire, searching the far corners of the universe, found that no enemy was in opposition and they yet lusted for war, as no dictatorship can exist without war.

Bannot, the Ninth in the Succession, turned his attention to past eras in search of a worthy foe.

Ibid

CHAPTER IV

They Come to Kill

THEY did not come the following dawn—or the next.

Joe Gresham had gradually taken over authority from Howard Loomis, yet he deferred to the judgment of Mary Calahan when he was in doubt. The headquarters cave was forty feet from the narrow valley floor, reached by a narrow ledge.

Joe summed up their plan. "We'll try to dicker with these jokers, but if they won't listen we better be ready. It's no use running. This is as good a place as we'll find."

During the two full days of preparation, Mary canceled all attempts at surprise weapons. She pointed up at the hovering boxes and said, "Whatever we do we'll be watched."

At the end of the second day there were six heavy bows. Stacey, pale and upset, displayed a remarkable talent for fashioning arrows. For the sake of speed the tips were fire-hardened. Joe had carried up the rocks. Howard Loomis had fashioned the spears, had made a sling, had traveled to the stream bed to gather small stones for the sling.

Water storage was a problem, unhappily solved by using the hides of the small deer-like creatures to fashion waterbags. Improper curing of the hides gave the water an evil smell, a worse taste.

The initial attack came on the third dawn.

Stacey was on watch at the cave mouth near the embers of the dead fire. Her scream jolted the other three out of sleep.

There were four of them. They stood on the brow of the hill opposite the cliff face. They were a good hundred and fifty yards away, the sun silhouetting them.

Mary shaded her eyes and frowned. "A ham act," she said. "A walk-on part. Spear-carriers. Something out of Shakespeare. J. Caesar, maybe."

The four, even at that distance, looked trim and young. They wore the crested helmets of antiquity, carried oval shields, short swords, unscabbarded. The sun glinted off the silver of their shields, the naked blades, the breastplates, the metallic thongs binding their husky legs.

They merely stood and watched.

"Armor, yet," Joe muttered. "What good are wooden arrows going to be?" Stacey began to moan.

"Shut up, honey," Mary said softly.

The four men advanced down the slope with cautious steps. As they reached the valley floor their tanned faces were upturned toward the face of the cliff. They wore short stout war axes suspended from their belts.

And above each of them floated a small metallic box.

They seemed wary but confident. Joe growled deep in his throat, backed into the shadow, notched one of the best arrows on the bowstring of the heaviest bow, pulled it back until his thumb touched his cheek, just under his right eye. His big arms trembled slightly with the strain.

He released the arrow. It sped down, whizzing toward the biggest of the four. The man raised his shield with startled speed. The arrow penetrated halfway through the shield. The big man staggered back, lowering his shield. A thin line of blood ran down his cheek. He shouted something in a foreign tongue, a wide smile on his face. With a careless flick of his short sword, he lopped off the protruding arrow.

Howard shouted, his voice shrilled, "What do you want?"

The answer was in English, oddly accented. "To kill you!"

"He couldn't have made it clearer," Mary said.

"Come on and try," Joe yelled.

The four, shields high, inched toward the narrow ledge that wound up to the wide place in front of the cave mouth.

"Let 'em get nearly up here," Joe muttered.

They were so close that the shields overlapped, giving the impression of a vast metallic beetle crawling up the rock.

Joe selected a rock that had taken him much effort to lug up to the cave. His big arms corded with the effort as he lifted it, staying back out of sight. Mary peered over the edge.

She signaled to Joe. He held the rock over his head, stumbled as he came rushing forward.

It took him precious seconds to regain his balance.

The hundred-pound stone crashed down among them. A man yelled in pain as he was smashed against the ledge. Two men fell off, tumbling down into the brush.

BUT the lead man, the one with the punctured cheek, scrambled up the last ten feet, throwing aside his shield.

He stood enormous in front of the cave, his sword flashing, the war axe in his huge left hand. His mouth was open in a wide grin of battle. Joe charged him with one of the spears but the sword lopped off the spear, along with Joe's

first finger and thumb.

Joe fell back. Mary flattened against the inside wall of the cave, stooped and picked up a half pound rock. Her tomboy girlhood had left cunning in her muscles. The rock hit the broad forehead. The man dropped sword and axe, dropped to his knees, his eyes glazed.

Joe took two steps forward and kicked the man in the face. He went over backward, dropped out of sight.

Two of the attackers were uninjured. They had recovered their shields, which they used to protect the injured man who had been hit by the stone Joe dropped among them. They disappeared down the valley into the brush.

The dead giant lay at the foot of the cliff.

They rekindled a fire from the embers while Joe held his right wrist clamped with his strong left hand. With the heated sword blade, Mary seared the stumps of finger and thumb. Joe screamed like a woman. Stacey sat with the face of one slowly going mad. She rocked from side to side and smiled foolishly.

Joe went to the dark interior of the cave and immediately fell into a deep sleep. Howard paced restlessly. Mary sat and watched the valley floor.

In mid-afternoon of the short day, the two uninjured ones made a concerted rush, looped a vine over the foot of the one who had died and dragged him off into the brush. As they did so, one of them glanced up at Mary.

He was dark, lean, powerfully built. But she noticed that there was a contradiction in his face. It had a specific sensibility, sensitivity. He had the look of a man who detested what he was doing.

Long after he had disappeared, she thought about him.

When Bannot, the Ninth Emperor Kane, ordered the court scientists to bring worthy foes from past eras, he had not sufficient training to realize that his request violated the first rule of space travel. Were any man to be taken from a past era the fact of his disappearance would make appreciable change in the future. As the future had already been determined, any effort to alter the past by removing a specific living being would be doomed to failure.

But the court scientists knew that to

fail meant death. Their researches carried them far afield. Many of them died painfully when the promises they made to Bannot were not fulfilled within the time interval allotted.

Court secrecy was such that posterity will never know which man it was who first brought a living being from a past era to his own time. His method was dependent upon scanning the person at the moment of death, thus assuring that there would be no specific effect on the past. The lateral movement in time of the person thus transported caused an actual physical split, so that the lifeless duplication of the body remained in the past world.

When the method was first disclosed there was an outcry from the philosophers and from the church, though both institutions had been carefully emasculated by the Kanes.

Bannot, in the week before his death, handled the outcry in typical fashion. He not only ordered the assassination of the more outspoken but explained to the peoples of all planets, in tones of sweet reasonableness, that these persons were not living, even though they seemed to be alive, as they had actually died in times long gone.

When Bannot felt death upon him he ordered the same technique to be used on him after his death, to return a few days to the past and bring him into a new life.

But Bannot died of an exceedingly painful disease, the result of past dissipation. His eldest son, who hated him, found that Bannot could be brought back, only to die again, in agony, within hours.

His eldest son extended those hours into a full year before at last tiring of the game and taking over the golden throne.

Ibid

CHAPTER V

Battle-Az Berserk

AT dawn the next day, four attackers stood as before on the brow of the opposite hill.

Joe, his right arm badly swollen, laughed mirthlessly. "We kill one and

cripple one and there's still four. A nice game they have."

"That's what it is, Joe," Mary said flatly. "A game. People who can make those little boxes that follow you around could do better than swords. This is like the old Roman amphitheatre. Those guys are gladiators. It's a big game with the boxes watching. Maybe the boxes flash the battle on screens. Home movies for the public. Hired entertainers."

Stacey had grown worse during the night. She sat with the empty smile on her lips and her eyes were far away.

Howard said, licking his lips, "Mary, do you think they could have. . ."

"For my money, yes. They want fun, so they grab us somehow just as we get knocked off and here we are and they have their fun."

"It—it's horrible!" Howard said.

"It ain't pretty," Mary agreed.

Howard said, "Why don't we just—well—hold our hands up. If we don't give them any sport, maybe they'll—"

"A lot I can do with one hand," Joe said. "Maybe it's worth a try."

Mary stood up, her lips compressed. "No dice, boys. These kids are blood-thirsty. I think they'd like to cut our throats. Why give them the brass ring?"

"What makes you so sure you're right, Callahan?" Howard asked.

"Take a look," she said tersely.

The four were advancing across the valley floor as cautiously as their predecessors. Mary looked closely. No, two of them were the same as the day before—the uninjured two, including the dark one with the look of disgust in his eyes.

There was nothing reassuring about their advance.

Howard said, "I still think it's—"

With a shrill scream Stacey bounded to her feet, shouldering between Mary and Howard. Though she had always been careful on the ledge she ran down at reckless speed. Mary picked herself up off the floor.

"Stacey!" Howard called after her. "Stacey, darling!"

He started to go after her. Joe caught him, held him, said, "Shut up and we'll see if your plan works. You couldn't catch her in time anyway."

They stood and watched the blond girl. This Stacey Murdock was grotesquely changed from the girl who had demanded that they get in touch with Daddy.

Her tan skin was scratched and torn, her hair dirty, her feet scarred by the rocks. She ran toward the four men, her hands outstretched. They heard her panting voice, her incoherent pleading. The lead man dropped sword and shield. Stacey ran to him. Mary saw the dark man make a move toward the lead man as though to object. But it was too late.

As Stacey ran toward the man's arms he sidestepped her. As she ran by him he caught her blond hair, yanked her backward off her feet. She fell with the small of her back across his bent knee. With one arm across her throat, the other across her hips, he snapped her back like a brittle stick.

He stood up and Mary could see the look of revulsion on his face as though he had disliked touching her. Stacey lay grotesquely bent. The man nudged her with his foot and the four of them looked up at the cave mouth.

HOWARD LOOMIS gave an incoherent yell, grabbed the battle axe from the floor and was gone before either Mary or Joe could stop him.

Still yelling in rage and the lust to kill, Howard Loomis, ex-salesman of Briskies, charged the four helmeted warriors.

Mary's throat tightened at the sight of his hopeless bravery.

By the pure fury of his attack he drove the two men back into their companions.

The slashing axe bounced off shield, rang off helmet, a bright arc in the morning light.

Three men dropped back. One of them faced Howard, parried his blows, waiting for the inevitable pause when Howard grew armweary.

With the short sword, as Howard's axe sagged, he spitted him carefully through the middle, twisting the wide blade to let air into the wound.

Howard fell onto his face, toppled over onto his side. The swordsman looked triumphantly up at the cave mouth. As he did so, Howard, with one last convulsive effort of the axe he still clutched, hacked at the swordsman's leg as one would hack at a tree. The axe severed muscle and tendon and artery.

"Good boy!" Joe whispered.

They stanchoned the flow of blood and one of them helped the injured man down the valley. The remaining two, the dark one and another one, stared up at the cave.

"They'll wait for their pal," Joe said.

"No. This thing seems to be run by rules. I say that if there are two of us left they'll only toss in two of them."

The two warriors moved cautiously toward the ledge, their shields high, their swords held tightly.

In the beginning a vast planet called Thor was earmarked and set aside for the wars between the soldiers of Kane and the soldiers of the past.

In the beginning there was difficulty in selecting the proper period of the past. To go too far back resulted in poor warfare. To go too short a distance into the past, was dangerous. At last it was decided that the savages of the twentieth century were the best. They had the beginnings of a technology and they yet retained much animal cunning.

In the beginning of this mock warfare the soldiers of Kane used the most modern of weapons and the opponents were annihilated so rapidly that the technicians were hard pressed to maintain the supply of combatants.

Also, with such vast armies on Thor, when the available weapons were equalized the loss among the soldiery of Kane was too great. In addition the images of the conflict beamed to all planets were vast, dusty, confusing.

The great-grandson of Bannot, bored with this type of conflict, devised new rules. He changed the scene of the conflict from Thor to Lassa. Lassa was a lush Earth-size planet, circling the bright sun Delta Virginis.

He ordered the manufacture of small individual scanners. He ordered brought from the past young healthy persons of both sexes, savages who could be expected to adjust to the wild conditions of Lassa and put up respectable battle.

In addition his propagandists inculcated a horror of the savages in the minds of those selected to oppose them.

In the beginning, because billions sat entranced before the screens watching the combat, there was intense rivalry among the young men to be selected as they hoped thus to gain fame.

But Orn, the great-grandson of Bannot, was shrewd enough to realize that he could kill two birds with one stone by making combat with the savages a necessary stepping stone to rank and authority within his elite corps of space warriors.

In this manner he assured his forces of constant supply of bold officer material as hand to hand combat, obsolete for two thousand years, was a screen to sieve out the faint of heart.

It was discovered that, by arming his warriors with short broadsword, shield and battle axe, the thrill of the combat was intensified in close quarters.

And Orn was sufficiently wise to know that the periodic spectacles served to keep reasonably content a mass of humans who otherwise might think of the personal liberty which they lacked, of the restrictions of life under dictatorship.

Ibid

CHAPTER VI

No Stage

AS dusk came, as the last attempt ceased, Joe laid on his back on the sandy floor of the cave, completely exhausted.

Mary Callahan stared down into the valley, watched the shadows slowly mask the two bodies remaining.

During the bitter afternoon, during the silent combat, neither side had been able to gain any decisive edge.

The crucial moment had come when the dark-haired warrior had, for a moment, gained the flat place in front of the cave. A blow from the club held in Joe's right hand had knocked his sword spinning into the valley. The warrior had left his axe behind so as to simplify the ascent.

He had blocked Joe's further blows with the shield, had beat an orderly retreat back down the ledge.

Joe sighed, inched over to the sagging water-bag, drank deeply.

Mary said ruefully, "Paging DeMille. Only his makeup was never this good."

Joe grunted. He said, "Always with the jokes, eh?"

"Either that or start screaming, laddie. Which'll you have?"

He didn't answer. She looked around, said, "Our best gadget was the rocks. And we're down to three good-sized ones. Can you help me or do I go down and see if I can bring up a few lady-sized ones."

Joe said, his voice oddly high, "Damn you, Johnny! You promised me that five bucks!"

Mary went over to him. She knelt and put the back of her hand against Joe's forehead. It was like fire. She got some of the fetid water, tore a new strip from the hem of her dress and began to bathe his face.

Joe moaned, rolled from side to side and talked incessantly. At last he went to sleep. Mary suddenly realized that the last of the carefully guarded store of matches was gone and in the heat of combat they had let the last embers die.

The stars shone with hard brilliance. She sat in the cave mouth. For a time she sang softly to herself because it was good to hear the lift of a song. In the starlight she felt her way down the ledge, struggled painfully back up with stones. Four trips was all that she could manage.

And then she talked aloud to herself. She told herself that it was a stupid and empty thing she was doing, to resist. The second death might come as quickly as the first. But she felt the hard core of her courage, the will that would not give up. And she knew a sardonic amusement.

She gnawed on the strips of hard smoked meat until her hunger was gone. Joe shivered in his comatose state, his teeth chattering.

She lay down beside him, warming his body with hers, at last drifting off to uneasy sleep.

The shadow in front of the morning sun awakened her. Even as she rolled to her feet, backed slowly to the cave wall, she knew that she had been fighting to remain asleep, squinting her eyes against the sun.

It was the dark-haired one.

He walked lightly toward her on the balls of his feet. At first he was in silhouette and then he turned so that she could see his face where the light struck it, see the lip lifted away from white teeth.

He lifted the sword, his right arm held in front of his body for a backhand slash.

Mary Callahan lifted her chin, smiled at him and said softly, "A quick one right across this swanlike neck, honey-bun. A real quick one."

The web of muscles stood out on his bronzed forearm. Dawn light shone on

the crest of the helmet.

She shut her eyes and waited. But the slashing blow did not come. She heard the thud, the grunt of effort and opened her eyes to see the dark-haired one drop like a log.

Joe stood on his feet, the wildness gone from his eyes. He held the club in his left hand. The swelling had begun to leave his right arm.

He said, "He was a soft one, Mary. He couldn't quite do it. And while he was making up his mind I got him."

JOE dropped the club, picked up the sword, wedged his toe under the fallen one's shoulder, rolled him over and aimed the point of the sword at the unprotected throat for a downward thrust.

"No!" Mary shouted. "Don't do it, Joe."

He gave her an odd look. "Why not?" "Because—well, maybe we can use him for a hostage."

The fallen man stirred. Joe shrugged, kicked him on the angle of the jaw, while Mary cut two strips from the empty water bag, tied the man's wrists tightly, then his ankles.

As she finished his ankles, the man opened his eyes and stared calmly at her. Joe once again pressed the tip of the sword to the man's throat. He looked as calmly up at Joe. The keen tip punctured the skin and a tiny rivulet of blood flowed down into the hollow of his strong throat.

Joe cursed. "I could have done it before, Mary, but I can't do it with him looking at me."

Mary pushed the blade away with the flat of her hand.

"Go watch for the other one," she said. Joe stalked to the mouth of the cave, muttering. She turned and glanced up at the two silver boxes which floated, motionless, a few inches from the high roof of the cave.

She smiled up at the lenses and said, "How do you like this, fight fans?"

Shawn, son of Orn, carried on the conflicts as devised by his father, ordering the technicians to make minor improvements.

But Shawn was wearied by the difficulties of administration of the great Empire the universe had ever seen.

With the passage of the years, as the blood of the Kanes thinned, unrest had

spread throughout the four hundred and eleven colonies and throughout Mother Earth. This unrest was based primarily on the accelerating reduction of the birth rate.

Colonies which once had numbered in the hundreds of millions had shrunk to half their original number. Shawn had kept the court scientists hard at work on the problem but they spoke to him of the tiring germ plasm, of the diminishing vitality of the race. They at last convinced him that the race of man had passed the crest of vitality and was doomed to gradual reduction in numbers until at last, when all vitality was gone, the weeds and the rot would take over the works of man.

When Shawn at last believed the word of his court scientists, when he knew that the Empire would eventually fall with the race, he embarked on a course of personal extravagance, of dissipation, that exceeded anything previously known during the reign of the line of Kane.

His subjects became increasingly discontented, the malcontent spreading even to the officers of his elite corps of warriors of space.

The flames smouldered deep underground and various secret societies were formed, each pledged to overthrow the empire. Such was the efficacy of the espionage system of the house of Kane that these societies were, for the most part, ignorant of the existence of the others and consequently each underestimated the total power of the spirit of rebellion.

In line with the spirit of malcontent, all decent men wearied of the spectacle of combat, feeling in their hearts that the bitter little battles on Lassa were but an evidence of the harshness of their ruler.

When Shawn found that his billions of subjects were not being entertained by the battles on Lassa, he cleverly recreated their interest by using Lassa as punishment for those he suspected of insubordination, of desiring to overthrow his empire.

He was not so foolish as to send only the rebels against the savages—against the savage dead, as they were called—but carefully kept the proportion down to three loyal and ambitious young officers to one rebel.

There was one minor difference. Once

an officer was victorious on Lassa, he was free to rejoin the fleet. But a rebel was condemned to remain until he at last was killed by one of the savages.

What Shawn did not realize was that his subjects, more than sated with the sight of death, had begun to be sympathetic toward the savages and had lost most of the superstitious horror and fear which was the result of the propaganda of his infamous ancestor.

Shawn was careful to see that loyal technicians handled the individual scanners so that, should any condemned rebel attempt to shout his defiance to the listening universe, he would be quickly taken off the receivers of the world.

But Shawn made one mistake. He misjudged the loyalty of one scanner operator, or possibly the operator of the scanner was loyal until he saw what happened in the case of the ex-officer, Anthon.

Or it can be argued that the Empire was in so precarious a state that any incident would have been sufficient.

Ibid

CHAPTER VII

Final Gesture

THE strands of hide cut deeply into his wrists and ankles and Anthon wondered at the strength of the savage woman who had tied him.

He knew that he was close to the end of his life and felt nothing but fury that his life should have ended in such a meaningless fashion. He would have willingly died in striking one more blow against the rule of the infamous Shawn.

These four savages had fought bravely. At least two of them had.

In the beginning, when he had been searched, when they had found on him the sketch of the castle defences, when he had been condemned to Lassa to fight against savages until he at last was killed, he had thought it best that to go into combat with the idea of being sufficiently clumsy so that death would come easily.

He knew that it would pain his friends, his relatives and those who had plotted with him against Shawn to see his death on the screen, but it had

seemed worth the candle to spite Shawn's plan for him to provide sport and entertainment.

Thus, during the training period, he had made no special effort to become adept with sword and axe as had the loyal officers, who looked upon Lassa not as punishment but as a field where they could gain fame.

He had nothing but contempt for those officers who put personal gain above the needs of the race, above the spirit of rebellion. But Anthon was human—he was a victim of hope—and he found that he did not wish to die so pointlessly.

Possibly, if he remained alive for a sufficiently long period, the Empire would be overthrown and he would be free to help build a new world for mankind. Anthon was a sensitive and intelligent man. He recognized the basic weakness of his stand, and the forlorn slimmness of his hope. And now the last of his hope was gone.

Incomprehensibly the girl had saved him from his own sword, held in the uninjured hand of the huge sunburned savage. Basically it was his own fault. Had he been able to steel himself to cut the throat of the woman with one back-handed slash he could then have disposed of the man.

He wondered ironically if the savage woman had saved him from the sword thrust out of some desire to repay him for not being able to strike the blow that would kill her. Surely, when Kor attacked, either the girl or the man would have one free moment in which to kill their bound captive before they died.

He pitied the two of them. They had been brought from their own world of the past to fight vainly against force that would eventually quell them. The girl knelt beside him and, with a bit of cloth, wiped away the blood at the base of his throat. Her eyes were as gentle as her touch.

Anthon wondered at the odd feeling of warmth within him. It had first occurred when he had seen her, standing with the smaller one with the yellow hair. He had not liked the death of the smaller one. He had wanted to interpose himself, to save her, but his resolve had come too late.

And the smaller man had died like a warrior, crippled a strong man even as he died.

He looked up into the blue eyes of the woman in the ragged dark red dress and something in her look was like a note of strange music. He smiled as he thought of the absurdity of feeling affection—even love—for one of the savage dead.

Yet, philosophically speaking, *was* she dead? She could feel pain and cold and fear. Her touch was gentle. Yes, this was a far different sort of being than the lean, rather astringent women of his own class. This savage one had a deep, lusty strength about her. And she was incredibly brave. She had smiled and when she had asked for death the meaning was clear.

He had but few words of her archaic tongue. He said, "Why not kill?"

"Why it speaks busted English," Mary said. "Why not kill you? Look, pretty boy. I want to live. Mary wants to live. Understand? How can I do that?"

"Mary," he said, rolling the name softly on his lips.

"That's right. Mary. Who are you?"

"Anthon. You will die."

"You say the nicest things, Tony. But you didn't say that fiercely now, did you? You said it like you didn't care for the idea very much but it was inevitable."

"No understand," he said and he wanted her to talk some more. He wanted very much to hear the sound of her voice.

"You're the soft one of the group, aren't you? The only one that doesn't seem to get a crazy joy out of killing off the innocent."

WITH his few words it was hard to tell her what he wanted to say. "If another way. If not die. Mary and Anthon."

Her laugh was husky silver. "Bless him! I get it, Tony. If not die maybe you're right. I like the look of you, lad."

She stood up quickly as Joe shouted hoarsely. The other warrior stood in the mouth of the cave. Anthon saw the dangling end of vine and knew how the man had been outwitted by Kor.

Kor was between the savage man and the mouth of the cave. The man had no chance. The man fought bravely with his club, but Kor parried the blow, slashed the man across the face. The man, his face spurting blood staggered back.

With another slash of the sword Kor

disemboweled him and the man toppled slowly over, fell out of sight. Anthon heard the crash as the man struck the floor of the valley below the cave mouth.

The girl, holding the crude spear rushed at Kor, trying to prod him over the edge. Anthon found himself wishing that she would be successful, wishing it so hard that his teeth almost met in his lower lip.

Kor twisted away from the thrust.

Anthon saw the ready blade and he screamed, "No! Don't—"

His scream faded into a sob. The girl with the dark hair lay face down on the cave floor, coughed once and then was still.

Kor came smiling forward and said, "Rebel, you live to try your luck again. Why they kept you alive I'll never know."

With a flick of the sword blade he severed the thongs that bound Anthon. Anthon moved as though in a dream. He waited a moment until feeling came back to his numbed hands. He reached for his own sword, came up off the floor with a roar of rage, with inhuman strength born of fury.

THE startled Kor parried the first blow but the second caught him at the angle of neck and shoulder. The blade severed bone. Kor dropped with the blade still in him.

Still blind with anger, Anthon spread his arms wide, looked up at the silver box above him and said, "Would that it was Shawn who received that blow. Shawn and every one of his assassins and his thieves and the criminals who surround him.

"It is time that we are done with Shawn and his brood. It is time that we were free. It is time for every man of courage to stand upright and fight off oppression. We are not as free as these poor savages who die on Lassa."

And then Anthon realized that with his first words the scanner would have been turned off, that he spoke only to the empty cave of death. He walked two heavy paces, sank on his knees beside the body of the girl and began to sob hoarsely.

History records that the technician operating the scanner turned and fought with bare hands against the supervisor

who would have turned it off. By the time the technician was killed, the damage was done.

No battle cry was ever broadcast so instantaneously to all parts of a vast empire.

Everyone had misjudged the strength of the forces of rebellion.

Entire space cruisers, almost to a man, revolted against Shawn. Those who remained loyal died suddenly. The rays of destruction crackled and spat and the air of many planets hummed with the blue fury of released power.

It is recorded that seven hundred millions died in that bloodbath. Shawn and his court died when the Palace of the Kanes became a wide pool of rock and molten metal which bubbled for many months like the crater of a somnolent volcano.

Earth, the mother of the race, was made the home of the new democratic government of the universe.

The organization of government, which has persisted to this day, was the Council of Seven. Anthon, as the man who sparked the rebellion, as the hero of billions, was elected to the original council, was immediately voted Chairman by the other six, who, it seemed, had been the leaders of the un-integrated groups seeking to overthrow Shawn.

For many months after he took over the Chairmanship Anthon was lethargic and depressed. He seemed to be a sick man. Many problems needed solution and there was talk for a time that Anthon, though a hero and a legend during his own lifetime, lacked the administrative ability to discharge properly his responsibilities.

We know, from the diary kept by Calitherous, that it was during a Council discussion of the greatest problem facing the race, that of the regression of procreative powers of the race, that Anthon came alive once more.

He whispered something so softly that no man could make out his words. Then, with eyes that flashed fire, he disbanded the meeting.

His manner was such that no man opposed him.

Anthon was closeted with his scientists for many weeks. One of the peculiarities of that period was the way he occupied himself during every free mo-

ment with the acquiring of skill in one of the archaic tongues.

Ibid

CHAPTER VIII

Re-Run

HOWARD LOOMIS spun as he heard a woman cough.

She was a tall girl in a wine evening dress. Her blue eyes were wide with fear and she stood, her hands at her throat. She looked at something in the air in front of her which did not exist.

"Rick!" she gasped.

Howard Loomis began to laugh. He couldn't control it. He staggered to the side of the vast luxurious room, furnished in a manner so strange as to give it the appearance of a dream, and laughed until the tears dripped ridiculously from the end of his sharp nose.

"Too—too much," he gasped. "Now bring on the golden harps."

"Who are you calling a harp?" the girl snapped.

The sound of her angry voice brought him out of it. He stared at her in silence.

"Where is this place? Who are you?"

"Those are my lines, mister."

"Is your name Mary?" Howard asked.

"If so, there's a guy here who—" There was no need to finish the statement. The young man with the air of authority, with the golden toga that left his bronzed left shoulder bare, pushed by Howard Loomis and advanced toward Mary Callahan.

In his odd English, he said, "Mary, you are more beautiful than before."

"Than before what, friend?"

Anthron took her hands in his. His eyes were warm. "There is much to tell you.

There is much that you do not understand."

"That, chum, is a perfect understatement."

"All I have time to tell you right now, Mary, is that this is a world thousands of years ahead of yours. You were brought her once before. I met you then. Others will come after you. I promise you a full and rich life at my side. You and those like you are the hope of this world, Mary. Through you we will gain the strength and vigor of times long past."

Mary Callahan tilted her head on one side. "Brother," she said, "I've been propositioned before but this is the first time I ever heard this line."

"Line?" he said. "All you have to do is to believe me and trust me."

She looked up into his eyes. She said, "Never let anybody say that Callahan doesn't land on her feet."

Anthron took her arm. He said, "Come with me. You must meet the Council. There are things I must explain to them. You can listen and I will translate for you and thus you will learn much."

Mary let herself be led toward the vast doorway. As she passed Howard Loomis she winked broadly at him said in a stage whisper, "I don't know what the deal is, chum, but something tells me I'm going to like it."

Howard Loomis scratched his head, bewildered and frustrated, as he saw the tall girl, her fingertips on the arm of the oddly dignified young man, pass out through the enormous arched doorway into the sunlight.

Ten minutes later he was hastily wrapping his topcoat around a soaking-wet young lady with blond hair who, in spite of her irate tone, seemed badly in need of a competent man to look after her.

Any good salesman is resourceful.



Rond Conway returns to the Planet his father left in disgrace—and learns the astonishing secret of his own past in THE LAKE OF THE GONE FOREVER, a brilliant novelet by LEIGH BRACKETT coming next issue plus four other novelets!



FREE LAND

By **WILLIAM MORRISON**

*Pioneers on Jupiter, Jay
and Lora are stuck with
soil that grows nothing!*

IN their single room, Jay and Lora had been waging an undeclared war for weeks, and it had left them both bruised and scarred. Jay was nursing one of his pet bruises when the Music of the Spheres program came to an end

and a professionally friendly grin appeared on the screen.

"What happened to the blinker?" asked Jay, frowning.

"Been out of order all afternoon," replied Lora, calmly. There were no ugly faces these days but even among the pretty ones Lora's was especially appealing. At any rate, it had appealed to Jay. So had her tall slender figure, her sense of humor, her way of speaking—a year ago, when they had been

married. Jay wondered which one of them had changed.

"What are you doing about it?" he demanded.

"What anyone would do. I've been listening to the commercials."

"Why didn't you say so before?" he grunted. But as he was lifting himself from his chair to blink the television by hand the friendly face spoke.

"Men, are you cramped in your one-room simplex apartments? Do you lack space to indulge your most innocent hobbies? Do you get on your wife's nerves? Does she get on yours?"

Jay's hand halted and he grinned wryly. "Answer the man, dear," he said. "Do we get on each other's nerves?"

"Only I on yours, darling."

"Folks, don't put up with this terrible condition any longer! Enter our great new interplanetary contest! You too may share the joys and triumphs of conquering an untamed planet! Be a pioneer, like your forefathers!"

"Simply complete in twenty-five words or less, the following sentence—'I'd like to live on Jupiter because—' That's all! Send your completed sentence along with ten units entrance fee, to the following address—"

Jay's hand rose to the switch again but Lora interrupted. "Let's hear the rest. Please, Jay."

As if conscious of his reprieve the announcer gave them an especially good view of his white teeth. "Yes, just complete this sentence—'I'd like to live on Jupiter because—' and you may win a full square mile of Jovian ground in this beautiful new residential and farming development.

"It's easy! For example—'I'd like to live on Jupiter because it's the largest planet and offers me all the variety in the System.'"

Jay pressed a button and the whole spiel, recorded on a plastic card, fell into the little message receiver at the bottom of the set.

"Thank you, dear," said Lora gratefully. "You know that ordinarily I don't care for commercials any more than you do. But this one's right up our alley."

Jay winced. If Lora had used slang or bad grammar he could have endured it but these archaic expressions always sounded affected and made strangers stare. "Right up our alley"—the silly words might have had some meaning

a few centuries back. But now, when nobody knew what an alley was—not even Lora—they made her seem like a double centenarian.

And yet, before they were married, he had thought her use of this very expression rather charming. Well, that was one respect in which she hadn't changed and he had. Perhaps, he thought, living with her in the same tiny number of cubic feet of sterilized space had warped his sense of humor.

Lora was drawing her finger slowly across a scratch-pad, and from where he stood he could read the words. "I'd like to live on Jupiter because it would be heaven on earth compared to Earth."

The announcer had given way to a news show. "And now, folks, we bring you a direct view of the latest experiments on the revolutionary new interstellar space cruiser designed by Professor Theodore Howell. The next scene to meet your eyes will be on Asteroid four hundred thirty-seven—"

"Thought those experiments were on nine hundred thirty-two," observed Jay.

"Really?"

"And before that they were on seven hundred-twenty-one, and before that on another one, and before that on the moon. They keep changing the site. I wonder why."

"I wouldn't know, dear."

"The ship itself must do something to the installation."

"Please, Jay, don't interrupt. Don't you see that I'm trying to concentrate?"

He expressed himself with a snort instead of the words that first came to his lips, pressed a button in the library case and, as the technical bookstrip flashed on the wall opposite, settled back to read. Or at least to pretend to read.

JAY was an aeroponic engineer. The old science of hydroponics had been developed to a point where the primitive researchers on soilless plants wouldn't have recognized their own child. Plant culture on water had quickly given way to culture on sand and gravel beds and, later, to beds of aerofoam plastic.

Now the plastic content had been so drastically reduced that modern plants almost entirely grew in, were supported by and received nourishment from a foam that consisted of slightly impure air. Aerosols and dusts supplied minerals, hormones, antibiotics, fungicides

and bacteria exactly at the time and in the place needed by the plant. Humidity was carefully controlled.

Artificial lightning storms supplied the electric stimulation needed to vary the monotony of vegetable existence, magnetic fields of the proper strength and direction were applied to the few plants that needed them. Radiation of the exact wave lengths required, from the low infra-red to the soft ultra-violet, was turned on for the proper periods and in the right combinations to secure optimum growth.

With everything so completely under control food production could be planned in complete independence of season or weather. There was just one tiny fly in the ointment. With Earth becoming crowded, aeroponic developments had climbed skyward and now there were more buildings devoted to the growing of plants than to the housing of human beings.

Sometimes the human beings rather resented their competitors and when they sank their teeth into a lily onion or a cucumber gourd they seemed to take an almost cannibalistic pleasure in tearing their rivals to pieces.

Jay didn't feel that way. He was what the ancients would have called a farmer and he loved the things that he helped grow, even if his activities consisted mostly of pushing buttons and reading charts. He knew what made a plant tick, as Lora might have said, and he could have grown vegetables on actual soil, if he had had to.

Sometimes, he thought wistfully, the old farmers had things better, combining exercise with intellectual activity, with no need for a gymnociser to give their muscles the stimulation there was now no other way of getting.

Jay was over six feet, husky and would have liked to indulge in the kind of physical labor, whose very name had been almost forgotten. That thought he usually kept to himself.

He moved restlessly in his chair, touched a button that shut off the book-strip and went to bed. Thoughts kept buzzing in his mind but the bedtime inhibitor, with its combination of visual signals and monotonous sounds, soon produced the necessary dulling of his brain and he went to sleep. Lora was still scratching on the pad.

It was a month later when Lora

greeted him with a beaming face. "I've won, darling, I've *won!* We can move to Jupiter! We can pioneer in the development of the great planet!"

He wasn't pleased! "I didn't think you'd send your entry in."

"You don't seem excited at all. Do you prefer to stay in this apartment all your life?"

"It might be better than being weighed down by Jupiter gravity."

"We won't be weighed down. All the developments are supplied with artificial deggravitizers. It'll feel just the same as it does here on Earth." She smiled tenderly. "You're supposed to be a scientist and didn't know that!"

"There's plenty I don't pretend to know," said Jay. "What was your winning slogan?"

"I'd like to live on Jupiter because it's the one planet where I can get down to earth."

"You mean," he asked incredulously, "that actually won a prize?"

"Not first prize. No money. But we get the square mile of land."

"Where is it?"

"Right in the center of the development. Not far from the Great Red Spot."

"It doesn't seem right, somehow. Anyway, we can't take it."

"You prefer our apartment?"

"I prefer my job," he said sharply. "They're electronizing aeroponics still further and half the men will be fired. I'm pretty sure to stay but not if I ask for a leave. Not at a time like this. They don't need me enough."

"You know, darling, we don't get the land unless we occupy it personally."

"It isn't worth anything or they wouldn't be giving you a square mile of it. Even a pioneer ought to know that."

"All right, Jay." She spoke slowly, as if unexpectedly discouraged. "Shall we divide our things now?"

"Divide?"

"We can't go on much longer like this without splitting up. Who are we to fight against a seventy-percent divorce rate?"

"You think our only hope is to get out of this place and go to Jupiter?"

"What else?"

"It will take almost everything we've saved up just to pay the fare. We won't be able to get back if we want to."

"Didn't the pioneers burn their bridges behind them? Or was it their breeches?"

An unwilling smile formed on his face. "You have more courage than I thought," he admitted and for the first time in many weeks he held her close and kissed her with genuine affection. "I can't admit that I have less."

"Jupiter, here we come!" murmured Lora ecstatically and Jay forgot to wince at her worn-out words.

IT took them a week on the big planet to realize that they had been, as Lora put it, sold down the river. They lived in a small portable Q-hut, which gave them just as much space to move around in as they had had in their apartment. But they spent little time in the hut itself. In their roles of pioneers they worked all day in the open air. But they worked fruitlessly.

The land was black and should have been fertile but nothing grew. There were no animals in sight, small or large, and to Jay that fact revealed everything. Where there were no animals there was no vegetation. Far in the distance a dim pink haze showed where the Red Spot began. In between were countless miles of uncovered soil.

At first Jay had been optimistic. "If anybody can raise crops on this place an aeroponic engineer can," he had said and unpacked his trunk of standardized seeds and spores. There were the seeds of gymno sperms and angiosperms as well as artificially developed in-between species. There were spores of commercial fungi and edible ferns. There were samples of every genus that a quick presurvey had shown should grow on Jupiter.

Nothing came up. Jay was slightly dazed at first and for the first time began to distrust his textbooks. He planted again, varying the conditions slightly, and again nothing grew.

He sat down outside the Q-hut and held his head in his hands. "I can't explain it," he admitted. "Soil's right chemically, humidity's right, illumination's within proper limits. I haven't done a thing wrong. But nothing germinates."

"Nothing germinates anywhere else either. Do you realize that we have a neighbor off to the right?"

Jay stared. Now that he stared he could barely make out another Q-hut.

"Fellow-pioneers. They came shortly after we did. I've walked over and talked

to them. They're Martians and not easily discouraged. But they don't understand it either."

"Maybe we can save some time by putting our heads together and exchanging experiences. Come on."

The Martian was a short grave man with a reddish wedge-shaped face. He was, Jay's experienced eye quickly noted, likewise a trained aeroponist.

"Graduate of All-Mars U.," he said.

"Me too," put in his wife. Instead of being shaped like a wedge, her face, Jay observed, was more like a heart. She was pretty, and serious. "Only I studied interplanetary history."

"Who composed the winning slogan?" asked Lora.

"I had that honor," she said. "I did it as a joke. 'I'd like to live on Jupiter because to live on Mars is stupider.' I never thought it would win."

"I still don't see how it did," admitted her husband.

A thought flickered through Jay's mind. "I didn't think of asking you before, Lora, but a belated suspicion has just occurred to me. When you sent in that slogan, what other information did you give beside name and address?"

"Age, occupation—"

"Husband's age and occupation too?"

"Correct."

Jay cursed slowly under his breath. They couldn't hear him but they could see his lips moving and they understood. "Do you know how those space-lice chose the winners? Not on the basis of the slogans you submitted. Anything that sounded like English could have won. They chose on the basis of occupation or husband's occupation."

The Martian nodded. "Looks that way. But let's check. I've got a neighbor to my right. Let's see if he's an aeroponist too."

He was.

WITH all the aeroponists losing jobs on Earth and Mars it should have been no surprise, as Lora pointed out. There were a few exceptions. As they explored the neighborhood, they managed to find one biologist, an engineer who specialized in irrigation works and several other scientifically trained men.

But the aeroponists outnumbered them. It was significant that every prize-winning family contained at least one

individual with training in the physical or biological sciences.

"This is the strangest collection of adventurous pioneers I ever heard of," said Jay later as he and Lora sat outside their own Q-hut again. "No space-men, rocketeers or other genuine adventure-lovers need apply. A pretty picture we make."

"I can think of a prettier," she answered. "Let's turn on the televisior and forget our troubles."

"Let's think of them," said Jay. "Here's the Mid-Jupiter Development Company with several hundred thousand square miles of land on its hands. Nothing grows here, so they can't sell any of it. But by all appearances and by simple chemical tests the soil should be fertile. What's the cause of failure to grow?"

"Research would give the answer. So the company hires a few technicians, and has them do some experiments. No results. To really get somewhere they might have to spend several million units on a real research program. So somebody has a bright idea. Why not get the research done free?"

"Simple, isn't it? They give away the land to people like us and our Martian friends, whom they'd otherwise have to pay high salaries to come here. If we fail we are out of luck. If any one of us succeeds the Company can use his methods and its land is now worth something. It's a simple and wonderful system—for the Company. But for us—"

"We're up the creek without oars."

"What are oars?" demanded Jay.

"I don't know," admitted Lora. "You read about them in old sea tales, along with winches and mizzenmasts and chanties and such things. But it's a wonderful expression."

"I know something even more wonderful. Do you realize, Lora, that we haven't had any respiratory diseases or other infections since we came here? And without health treatments."

"That's right. Even bacteria and viruses won't grow. And more wonderful still—even quarrels don't thrive here. We haven't had one!"

"There's something unusual about this place and I'm going to find out what it is."

"I'm sure you will, Jay," Lora smiled. "In the old days you'd have made a wonderful pioneer. You don't make a bad

one now. That never-say-die spirit is just what the doctor ordered."

"What doctor?"

"Imaginary. It's just another old expression."

"Seeing as you don't make a bad pioneer's wife, I'll excuse the expression."

"Thanks, darling. Mind if I turn on the televisior?"

"Go ahead. But this time make sure the blinker's working."

The screen lit up. But Lora turned the voice down low and Jay was hardly disturbed. He recalled later, somewhat absently, that there had been another report on the Howell space cruiser—something to the effect that experiments had been halted for reasons unnamed. He was too busy thinking of his new plans to pay much attention.

IT was a month later that he proudly demonstrated his first success. He had a few square feet of ground which were covered with old-fashioned tomato plants and he showed them to Lora, who beamed with pride.

"I knew you could do it," she said happily.

"So did I. Now to find a practical way."

"Isn't this practical?" she demanded.

"The plants are thriving."

"I had to import the soil," he told her.

"That makes the growing of tomatoes rather expensive. Now the question is, what does the imported dirt have that Jupiter doesn't?"

While he worked on the answer the the plants stopped thriving and died. As Lora stood there, mourning their deaths, a space copter settled down near them, and two men stepped out. They were both tall and hard-bitten and they wore the Red-Spot badges of the Mid-Jupiter Company.

They stared at the dead plants in some surprise and then one of them, trying to soften his face into an expression of sympathy, strode up to Jay and said, "Tough break you had there, friend. You didn't do badly though. Most people can't get anything at all to grow."

"Thanks to your outfit."

"My outfit? We've been doing research, trying to find a way to make the place livable. It isn't our fault if this blasted planet won't support life. Tell you what we'll do. We'll buy it back from you."

"No, thanks," said Jay.

"At twice the price you paid for it?"

"Nice of you. We got it as a gift."

"The contest, huh? Then anything we give you is profit. That's what a lot of the other people around here figured—they've sold out. Suppose we were to offer a thousand credits."

"No soap," remarked Lora.

The man stared at her. "Who said anything about detergents?"

"Nobody." Jay interpreted, "She means that we're not selling."

"Two thousand?"

"Still no soap," interrupted Jay. "We're holding onto everything we've got. And now, if you don't mind, I'd like to get back to my plants."

Both men were scowling when they got into their copter. As it leaped up, it gave an extravasious blast of the take-off jets that made perfectly clear what their feelings were.

"Wonder why they want it back," said Lora. "Do you think they've discovered a method of food production that will really work here?"

"Could be," said Jay. "If I have they certainly ought to be able to."

"You have? Oh, Jay, you mean—"

"I certainly do mean it. The answer's simple enough, too. Radioactivity."

"Radioactivity?" she repeated doubtfully. "But I thought it was shown long ago that plants don't need radioactives."

"They don't. That's what threw me off the track for so long. Nevertheless, without radioactives, plants won't grow here."

Lora frowned. "I'm not sure that I understand. You mean that there's something in the soil?"

"Right. It emits what you might call an anti-radiation. It doesn't register at all on ordinary counters but it can be measured by its effect in destroying radioactivity. Somehow it stabilizes atoms that would ordinarily disintegrate. And in some way that I don't understand as yet, it destroys plant life, preventing the cells from dividing. To overcome its effect you need radioactives."

"So from now on we'll have no trouble raising crops?"

"I think not," said Jay. And he began to hum a variation of what was supposed to be an ancient folk tune—"The pioneers with hairy ears. They do not stop at trifles—"

Their next plants didn't die. But a week after they had sprouted the two Company men settled down in their copter once more. This time they made no pretense of being friendly. One of them held out a bill of sale and said bluntly, "You're accepting our offer. Sign here."

"Take it on the lam, lug," retorted Lora, talking out of the side of her mouth. The phrase and the manner of using it both came from an ancient novel and seemed to suit the situation.

"Lamb? I don't see any sheep."

"You are being requested to leave," explained Jay politely.

"Not this time. Our copter's armed and we have definite instructions. Either you sign up within five minutes or we blow you and your Q-hut to the other side of Jupiter."

HE stalked away toward the copter. Lora clung to her husband and asked, "What do we do now, Jay?"

"It's a little hard to say, darling. The situation isn't discussed in my reference books. And we have no weapons."

"Does this mean that we lose everything—just when things seemed to be coming along so wonderfully?"

"It does not," said Jay, gritting his teeth. "That is one thing it doesn't mean."

"But what can we do?"

"I don't know. What did the old pioneers do when they were attacked by wolves while working in their fields?"

"They hit the wolves over the head with spades or axes."

"We have no spades or axes." He stood silent for a brief moment and, during the painful pause, Lora could see guns thrusting out from the side of the copter and swinging in the direction of their Q-hut.

"But we have something better," he said suddenly and ran toward the field where they had been working.

They knew the five minutes were up when the first missile puffed out of a gun in a quiet hiss, striking with a burst of flame a short distance past their hut. Almost simultaneously, Jay's sprayer chugged into action.

A thin network of plastifoam settled around the copter, so that its bright surface seemed suddenly tarnished. Another layer settled around that and then another. A panicky puff from another

gun tore through the net for an instant, to land harmlessly off to the left. Then the plastifoam began to thicken.

The two men in the copter were frightened and they made their fright obvious by starting the motors. But there was no escape from the inexorable Jay. Just as the copter rose into the air, the network of plastifoam surrounding it turned green.

"Instantly-germinating spores," thought Lora in horror and watched in fascination as the copter settled down again. The two men broke away from it, their clothes and faces both a deepening green, the terror of their expressions showing as through verdigris veils.

"This thing is eating into us," cried one of them hoarsely. "You can't let us die. It's murder!"

"It's self-defense," said Jay coolly. "If you want to live throw down your weapons."

"We haven't any on us. Hurry!"

Jay sprayed them casually with a fungistatic solution. "That'll hold the spores, but only for a few minutes. If you're telling the truth I'll give you another dose later."

One of them had a pocket bazooka concealed under his jacket and Jay made him toss that to the ground. Then, while the two men pleaded with him, Jay stripped the copter. He took the armament and after that the radio communicators. "It's beginning to eat into us again," whined one of the men.

"Don't let your imagination run away with you," returned Jay. "You've got another five minutes."

They pleaded with him vainly as he sent a message to the nearest Red Spot patrol station. Then he turned to face them again. "Message recorded. They have your description, and a report of what you tried to do here. You'll give yourself up to them."

"Anything you say," said the leader of the two men, a calculating eagerness in his voice.

"Don't get any ideas about escaping or coming back here. The Patrol is a half hour away by copter. I'll give you enough spray to hold the fungus for thirty-five minutes. The patrol will do the rest when you get there. Break your word and you'll die a pretty green death."

"I swear that we won't."

"You'd better not. Now I want you

to complete in twenty-five seconds or less this sentence.—'We are going to stop living on Jupiter or else—'"

He sprayed them and they ran for the copter. It was off the ground in twenty-four seconds.

JAY grinned.

Lora said, "O my heroic pioneer!"

"Pioneer, your eye—if I may be permitted to use one of your expressions. I'm civilized."

"Not that I can notice."

"Do you think I'm going to stay here and spread radioactives on the soil, to grow plants the hard way? I've got a better idea than that. Know why the company wanted this place?"

"To grow the crops themselves."

"You haven't watched the televisior. The Howell space cruiser needs it."

"I haven't seen any report."

"Put two and two together as I've finally done," said Jay. "Why has the Howell research group been moving from asteroid to asteroid? Because they void chemical fuels on the take-off. They save space by using *only* atomic fuels."

"But they haven't mastered the problem of cutting the radioactivity out of the exhaust. So whatever base they use becomes more and more dangerous, and eventually has to be abandoned, just like that ancient place, Bikini, where even the soil and water became radioactive."

"But this place kills radioactivity."

"You're right on the ball."

Lora stared. "Where did you pick that one up?"

"From my dear wife. Yes, this place kills radioactivity. It can be a permanent base. Moreover, the experiments will turn this whole area into fertile ground. And we're right in the center of it. That's why the Company wanted the land back. They couldn't sell or lease the area while we held onto our plot."

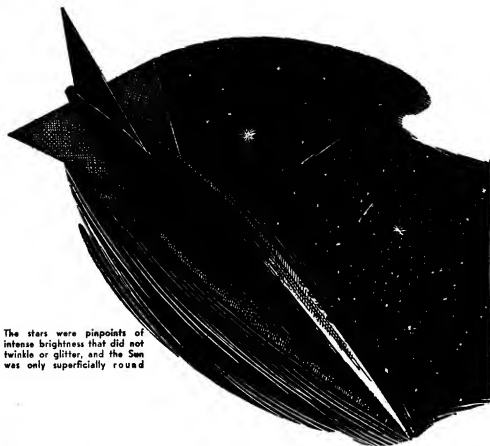
"That means we can get our own price and buy a farm for ourselves, as well as for some of our fellow-victims, any place we want."

"And start pioneering the easy way."

Lora laughed. "Finish this sentence in twenty-five words or less," she said. "When I pioneer, I'd like the following comforts—one mansion, one spacecraft—"

"One wife—period," said Jay, giving her a squeeze as good as any a pioneer's wife ever received.

PROJECT



The stars were pinpoints of intense brightness that did not twinkle or glitter, and the Sun was only superficially round

a novelet by A. E. VAN VOGT

CHAPTER I

Test Run

MERRITT recognized the crisis when VA-2 attained a speed of 4,000 miles an hour.

Modeled on the German V-2 bomb the rocket climbed toward the noonday sun on a column of crooked fire, as its gyroscopic stabilizers worked in their spasmodic fashion to balance the torpedo structure.

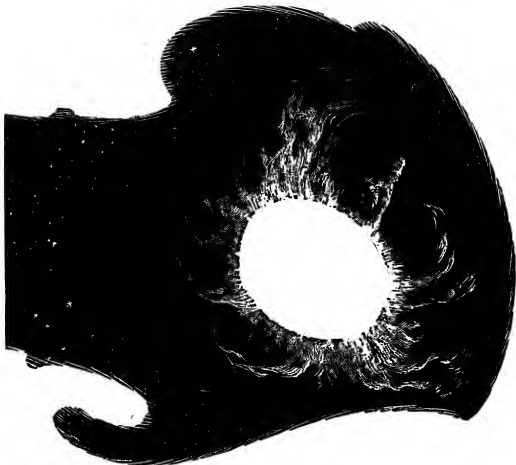
Loaded with instruments instead of a warhead it shot up 764 miles. It topped the highest peak of the planet's 500-mile-deep atmosphere. It broke into

the emptiness of space and, for a few moments on the television screen near the launching rack, the stars showed as bright pinpoints against a background of black velvet.

In spite of its velocity it was never in danger of leaving Earth's gravitational field. It came down. And, after they had exhumed the scarred shell from the desert sands, there was a meeting at which Merritt was appointed a committee of one. He was charged with the positive duty of persuading the government of

SPACESHIP

Robert Merritt discovers that the biggest barrier between man and interplanetary travel is—Man!



the United States "to finance and build a spaceship capable of transporting human beings in and through the airless void above the atmosphere of this planet."

The sum of one thousand dollars was voted him for initial expenses.

* * * * *

Merritt tiptoed into his apartment about 2 o'clock. His excitement, now that he was home and near Ilsa, subsided rapidly. As he undressed in the liv-

ing room, using only one dim light, he wondered what Ilsa would think of his mission.

"Bob, is that you?"

Merritt hesitated.

"What time is it, Bob?"

Merritt, carrying his shoes, trousers, coat and shirt, walked into the bedroom. Ilsa was sitting up, lighting a cigarette. She was a dark-haired olive-complexioned young woman with passionate lips. She put out her hand and Merritt handed her the check and, while

she studied it, he climbed into his pajamas and explained what it was for. She began to laugh before he finished, a staccato laugh.

"With one thousand dollars," she said finally, controlling herself, "you expect to persuade a *political* government to build a machine more expensive than any battleship ever constructed. My dear, I was married to a Washington lobbyist and I assure you it isn't done on the cheap."

IT was the first time in the four years since their marriage that she had mentioned her first husband. Merritt glanced at her sharply. He saw that her cheeks were flushed, that she was furious with him.

"Really," she said, "I wish you wouldn't waste your time with that bunch of dreamers. Spaceships! Such nonsense. Besides, what good is it? I wish you'd get busy and make some money for us."

Merritt did not answer. He had a theory about money making. But it was not one he could expound to a woman whose first husband had amassed a fortune after she divorced him.

He climbed into his bed. "You have no objection, I hope," he said, "to my spending the thousand before I come around to your way of thinking?"

Ilsa shrugged. "It'll give you a trip. But it's so silly. What are you going to do first?"

"Go see a schoolmate of mine named Norman Lowery. He's secretary to Professor Hillier, the mathematician and physicist. We have to build up to the President by degrees, you know."

"I'll bet you do," said Ilsa.

She began to laugh again. She was still at it when Merritt made his first attempt to kiss her. She pushed him away.

"Don't try to get around me," she said bitterly. "I'm just beginning to realize that I'm doomed to be the wife of a low-salaried husband. You'll have to be gentle with me while I get used to the idea."

Merritt said nothing. Life had become progressively tense of recent months.

Almost, he had come to believe that men with obsessions shouldn't marry. It was too hard on the woman.

"The trouble with you," said Ilsa, her voice softening, "is that you're a

living misrepresentation. You give the impression that you're bound for the top but you don't even try to get started."

"Maybe I'm further along than you think," Merritt ventured.

"Nuts!"

She finally let him kiss her—on the neck, not the lips. "I feel as if I would poison you after what I've said. And I'm not quite prepared for that yet."

* * * * *

Norman Lowery met Merritt at the station. He looked older by at least ten years than when Merritt had seen him two years previously. He led Merritt toward an imposing Cadillac and, after they had started, said, "Don't be too surprised when you see Professor Hillier."

"That was Merritt's first inkling that something was wrong. 'What do you mean?' Sharply.

"You'll see."

Merritt studied his friend's profile in narrow-eyed thoughtfulness but he asked no questions. The big car was out of the town now, bowling along a paved highway at sixty miles an hour.

After about ten minutes it turned off into a valley and came presently to a little dream village. Several large buildings dominated the scene. And there were about two dozen houses in all, scattered along the banks of a pretty winding stream.

As Lowery turned up the driveway of the largest bungalow he said, "Professor Hillier is independently wealthy—luckily for him—and all this is his property. Those buildings over there are his labs. His assistants and their families live in the houses."

He added, "Notice how we're closed in by steep hills. That's in case of an atomic bomb attack on the big dam twenty-five miles south. All the buildings, including the residences are steel and concrete under their stucco exteriors and paneled interiors, though the professor only laughs at that in his sensible moments."

Merritt did not like the reference to "sensible moments." As the car parked in the driveway he climbed out slowly and took another look along the valley.

He thought, "To me atomic energy is open sesame to the future. To these people—"

HE wasn't sure just what was wrong. But there was a pressing negativeness here as if a man had built himself a mausoleum and was waiting for death to step closer. Long before, Merritt had rejected headlong retreat from the vulnerable cities, had aligned himself with the hundred million whose only hope of escape was that their leaders would have the common sense to solve the problem of the doomsday bomb.

Merritt asked finally, "Has this place got a name?"

"Hillier Haven."

At least it fitted.

They entered the house through French windows, which opened into a spacious living room. There was a bar in one corner. Lowery ducked through an opening in its side and popped up behind it.

"I'll mix you a drink," he said, "then go look for the professor. This is his house, you know, or did I say that before? He and his daughter and I live here. Very cozy." He laughed grimly. "What'll you have?"

Merritt had a whisky and soda. He sat down in an easy chair and watched Lowery disappear into the garden beyond the French windows. The minutes passed. After about half an hour he climbed to his feet and walked over to a half-open door that had been intriguing him for some time. It was a library lined with books. Merritt returned to his chair. He was an avaricious reader but not today—not this month.

Another half hour went by. He could feel himself growing tenser. He had already paced the length of the room several times. Now he did it again but without any sense of relaxation.

He had a vision of himself during the next few months, waiting for men like Professor Hillier to condescend to give him a hearing. He began to realize the massiveness of the task he had set himself. He was going to try to push an idea into men who had hacked their own way to success through the equivalent of granite.

Men whose characters were as different and inflexible as their achievements. Men of great talent and great power. He, Robert Merritt, who could scarcely pay his bills every month, was going to do all that.

"We're nuts!" he thought. "The

whole bunch of us. Imagine—a few hundred fanatics trying to push America into a spaceship! Ilsa was right."

But he stayed where he was.

A door opened, and a girl came in. She was slim and blond with gray eyes. She paused as she saw Merritt. She came forward, smiling.

"You must be Robert Merritt," she said. "Norman told me about you. I'm Drusilla Julia, Professor Hillier's daughter."

She looked cool and refreshing and sane. Merritt answered her smile and said, "Your father must be a student of ancient Rome."

"Oh, you recognize the origin of my names." She was pleased.

After a moment however she frowned. "Norman has been telling me about what your club is trying to do. Just what are your plans?"

Merritt told her what VA-2 had accomplished. He went on, "VB-2 is now under construction. It will be somewhat different from the first ship"—he hesitated—"in that its acceleration will never be above six gravities."

He watched her face to see if she had any inkling of what that meant. For a moment she didn't seem to. And then her eyes lighted up.

She said in a low, intense tone, "You're going to put a human being into it. You wonderful men! You wonderful young men! The future really does belong to you, doesn't it?"

CHAPTER II

The Problem Professor

SHE didn't look so old herself. About twenty-two. Merritt estimated sardonically. If the young people of this age were destined to explore the planets, then she could be right in there pitching. But he liked her for knowing something.

The question most often asked him by people was, "But how can a ship fly in space where there's no air for the explosions to push against." He saw that her enthusiasm was subsiding.

She said, "Actually, that isn't what I meant when I asked you about your

plans. What I want to know is what do you expect of father?"

Merritt explained that they wanted the famous Professor Hillier, atomic bomb scientist, to be ready to go to Washington at the proper time to help persuade President Graham to support Project Spaceship. When he had finished, the expression on the girl's face was distinctly unhappy.

"Can't you," she asked, "obtain the support of some other scientist?"

Merritt said simply, "We need a household name. Years ago there was Edison, then it was Einstein, now it's Hillier. You can't fight a thing like that. It's just so. Besides, some of the more famous atomic scientists will have nothing to do with the government since atomic energy was virtually placed under military control."

He shrugged. "Naturally, since no secret is involved, our members basically support the scientists. But we're willing to work with the material we have. We've found individual military men absolutely cooperative. They've given us German V-One and V-Two bombs.

"Jet and other planes have been turned over to us in almost any quantity we could ever hope to need. The armed forces are full of young eager officers and men who are only too anxious for somebody to reach the planets."

His voice was warming to the level of enthusiasm. He realized suddenly, that he was being boyish. He stiffened.

He said quietly, "The world is as full as ever of the spirit of adventure. But people have to be cajoled and set on the right path to the future."

"My father," said Drusilla Julia Hillier, "is going to be difficult. I'll be frank about that." She went on earnestly, "Mr. Merritt, as you know, he was one of the atomic bomb scientists. After the war he visited Hiroshima and—well, it affected him.

"Norman and I have prepared a letter which we have already shown father, and which we are trying to persuade him to sign. So far he has not done so. I'm afraid it will be up to you to persuade him."

The French windows opened and Lowery strode in. "'Lo, Dru," he said. He looked at Merritt. "Sorry, I've been so slow but it's taken me all this time to locate the professor." His voice had a peculiar note in it, as he added, "Will

you come this way, and meet him in one of his favorite poses."

The girl said, her color high, "Be seeing you at dinner, Mr. Merritt."

Merritt went out, puzzled. Outside he began in an irritated tone, "For heaven's sake, Norman, what's going on here? This mystery is—"

He stopped. They had rounded a line of shrubs and there was a man lying on the grass under the trees. He was a gaunt old fellow with white hair, and a distinctively long head. His face was partly hidden by one arm. His expensive clothes were disheveled and his posture twisted and ungainly.

As Merritt gaped in a gathering comprehension Lowery said, "Liquor has been unfair to Professor Hillier. It just wasn't meant for him. One or two glasses of the mildest concoctions and his whole system backfires like that. He's very determined, though. He's going to lick it yet, he says. Well, shall we go back into the house?"

Merritt went without a word. But he was thinking that getting a full-grown spaceship into the air was going to be more difficult than he had dreamed.

PROFESSOR HILLIER came in to dinner. His eyes were quite blood-shot but he didn't stagger. He shook hands affably with Merritt.

"If I remember correctly," he said, "you came out and had a look at me. My daughter and her—ahem—I believe they're going to get married, but you never can tell about these moral young men—believe in letting visitors form their own conclusions. A very poor policy if you ask me. This world is too full of infidels and other non-drinkers."

Merritt wasn't sure just what he ought to say.

Before he could speak Drusilla said, smiling, "Father still lives in the era in which young people, when thrown together, automatically fall for each other. Norman and I have our own friends and personally I have yet to meet the man I am going to marry."

Merritt glanced at his friend. Lowery was staring straight ahead with studied indifference and Merritt had his first realization of the situation that existed here. Boy loves girl but girl does not love boy. And the ass was making his situation hopeless by aging under the strain.

They sat down to dinner. The professor said, "Who's going to fly VB-Two?"

Merritt parted his lips to answer, then stopped himself, and looked at his host narrow-eyed. He couldn't have asked for a better question but after what he had heard of this man he'd have to take care not to let himself be drawn into a trap. He replied cautiously:

"The choice is between two men."

He went on to explain the tests that had been given every member of the Rocket club. The important thing was the ability to withstand acceleration. The army had several wonderful men whose anti-acceleration capacities were almost miraculous. Several of these had offered privately to perform the flight. But it had been decided not to use them for fear of arousing the ire of the high command.

"So," Merritt concluded, "we'll have to do it ourselves. A salesman, named John Errol, is the most likely man." He saw that it would be unnecessary to name the second in line.

"What," asked Professor Hillier, "are your plans for getting to the President?"

Merritt was surer of himself now. At least he was getting a chance to explain. He said, "The route is rather complicated. We have selected key men whose support we feel we must get before we can even approach the President. We want to interest a top brass hat in both the army and the navy."

"It happens that one of our members knows a high naval official who has practically guaranteed us support. But if the army should turn thumbs down it might stop us for years."

"However, all that is still more than a month away. We all agree that we must first obtain the support of Professor Hillier. Unless some famous scientist will say that space flight is possible it will be difficult to convince the so-called hard-headed businessmen."

Professor Hillier was scowling. "Businessmen!" he snarled. "Yaah!"

Merritt thought: "Oh-oh, here it comes."

The professor had been eating with the concentrated intentness of a hungry man.

Now he paused. He looked up. His scarlet eyes gleamed.

"This desire to go to the planets," he

said, "is the neurotic ambition of supreme escapists from life."

His daughter looked at Merritt, then said quickly, "That sounds odd, doesn't it, coming from a man who has made a fortune out of exploring the frontiers of science and who, moreover, has hung onto his money with the skill of a hard-headed businessman."

She added, addressing her father directly, "Don't forget, darling, you're committed to space travel. You're going to write a letter."

"I haven't written it yet," said Professor Hillier grimly. "And I am toying with the idea of not writing it. The thought that a scientist in his cups might stop man from reaching the stars fascinates me."

The conversation had taken a turn that Merritt did not like. He recognized in the professor a man who had tossed aside his inhibitions late in life. Such people always overdid their freedom. And that was a danger.

"Don't you think, sir," Merritt said quietly, "that it would be more fascinating if—uh, a scientist in his cups were the key figure in reaching the planets. Fact is, that's the only way it would ever get into the history books. It isn't history if it doesn't happen."

Professor Hillier showed his teeth. "You're one of these bright young men with an answer for everything," he said. He made it sound offensive. "Your attitude toward life is too positive to suit me."

He put up a hand. "Wait," he thundered.

"Father, really."

The professor scowled at his daughter. "Don't give me any of that really stuff. Here's a young man who rather fancies himself. And I'm going to show him up. Imagine," he said viciously, "pretending that he's an expert on space travel."

He turned toward Merritt. He said in a silken voice, "You and I are going to play a little game. I'm going to be a sweet old lady and you be yourself. You're cornered, understand, but very gallant. My first question is—"

He changed his tone. He was not a very good actor, so his tone was a burlesque and not very funny. "But my dear Mr. Merritt," he said, "how will it fly? After all, there's no air out there for the explosions to push against."

MERRITT told himself that he had to hold back his anger. He said, "Rocket tubes, Mrs. Smith, work on the principle that action and reaction are equal and opposite. When you fire a shotgun there is a kick against your shoulder.

"That kick would occur even if you were standing in a vacuum when you pulled the trigger. Actually, the presence of air slows a rocket ship. At the speeds a rocket can travel air pressure rises to thousands of pounds per square inch. In free space, away from the pull of gravity, a rocket will travel at many miles per second."

"But," mimicked Professor Hillier, "wouldn't such speeds kill every living thing aboard?"

Merritt said, "Madam, you are confusing acceleration with speed. Speed never hurt anybody. At this moment you are traveling on a planet which is whirling on its axis at more than a thousand miles an hour.

"The planet itself is following an erratic course around the sun at a speed of nineteen and a fraction miles a second. Simultaneously the sun and all its planets are hurtling through space at a speed of twelve miles a second. So you see, if speed could affect you, it would have done so long ago.

"On the other hand you have probably been in a car on occasion when it started up very swiftly and you were pressed into the back of your seat. In short you were affected by the car's acceleration. Similarly, when a car is braked all of a sudden, everybody in it is flung forward. In other words it has decelerated too swiftly for comfort.

"The solution is a slow gathering of speed. Let us imagine that an automobile is traveling at a speed of ten miles an hour, a minute later at twenty miles an hour and so on, ten miles an hour faster each minute.

"The driver would scarcely notice the acceleration but, at the end of a hundred minutes, he would be moving along at a thousand miles per hour. And he would have attained that speed by an acceleration of ten miles an hour per minute.

"Actually, human beings have survived decelerations—(crash landings)—approximating fifteen gravities. But it is recognized that the average person will be pretty close to death at six

gravities and very few could survive nine gravities of acceleration."

"What," said the scientist, "do you mean by gravities?"

"One gravity," Merritt began, "is the normal pull of earth upon an object at ground level. Two gravities would be twice—"

At that moment he happened to glance at Drusilla, and he stopped short. She was white and Merritt realized that she thought he was following the wrong tack. He straightened.

He said, "Really, sir, don't you think this is a little silly?"

"So you've got it all down like a parrot," Professor Hillier sneered. "Simple answers for simple people. Now the morons are going to learn about space and the planets and you're going to be the starry-eyed teacher."

"The notion that everybody should automatically know all about your subject," Merritt said, "is a curious egotism in so great a man."

"Aha," said the professor, "the young man is warming up at last. I suppose," he said, "you're also one of those who believe that the dropping of the atomic bomb was justified."

Merritt hadn't intended to become angry but he was tired of the ranting of high and mighty moralists on the subject of the atomic bomb. And he was very tired indeed of the childishness of Professor Hillier.

"Well, sir," he said, "man lives partly with himself, partly with his fellows. Personally, I was an army pilot, and I'm assuming the dropping of the bomb saved my life. But in the meantime I have interested myself in the non-destructive aspects of atomic energy." He shrugged. "Materialistic. That's me."

He took it for granted that he had lost the letter. But even if he had thought otherwise he was too wound up now to stop.

"Professor," he said, "you're a fraud. I've had a good long look at you and I'm willing to bet that you're never quite as drunk as you pretend. That business of spending half your time hanging onto the grass so you won't fall off the Earth is so fishy that I wonder you have the nerve to look anybody in the eye.

"As for all this nonsense about you having been strongly affected by the dropping of the bomb, you know very

well that that was merely an excuse for you to turn your ego loose and—"

The professor had been stiffening. Abruptly, he glared at his daughter.

"Drusilla, you little Roman puritan, where's that letter you typed out for me to sign?"

"I'll get it," she said hastily, rising.

"I'm going to sign it," the scientist said to Merritt, "and then I want you to get out of here before you ruin my reputation."

A few minutes later, as Lowery was getting the car out of the garage, Professor Hillier came to the door where Merritt was waiting.

"Good luck," he said, "and happy planets to you, Mr. Merritt."

CHAPTER III

Mountainous Molehills

THE partial victory had a heady effect on Merritt. By the time he got back to Los Angeles he was convinced that a letter was all he could have hoped for. He had Pete Lowery make fifty photostats and the huge pile that resulted made him glow. He phoned up Grayson, president of the Rocket Club, and reported his success.

He finished: "... and I'm leaving for New York tonight."

"Oh, no, you're not," said Mike Grayson. "I was just going to call you and see if you were home?"

"What's up?"

It was a potential new member. Annie the superjet would have to be flown for his benefit and only Merritt and John Errol could fly the fast plane. Errol was out of town, so— Grayson's voice lowered in awe as he gave the final, important fact:

"It's for Rod Peterson, Bob."

"The movie star?"

"None other."

"What do you expect from him?"

They expected a ten-thousand-dollar contribution. "You know our policy. Each man according to his income. And our set-up is such that he can put it down as a bad investment on his tax declaration. Need I say the idea appeals to him?"

"What about *our* income tax?"

Grayson was complacent. "We'll be on the moon before they discover that we're not paying any. Of course, in a kind of a way they recognize us as a non-profit organization but they're getting more and more suspicious, the silly asses."

Merritt grinned. Contact with certain members of the Rocket Club always exhilarated him. The members in general moved through life as if they had wings in their hair, and a few of them imparted a special aura of the kind of intoxication that he himself had felt overseas.

Of all the millions of men who had built up an appetite for excitement they were the lucky ones who would be able to satisfy their desires. Without exception they had a conviction of high destiny.

Grayson finished, "If we get the ten grand we'll give you one of them for your job. So you'd better be around."

Ilsa merely sniffed when Merritt told her who would be at the barns. But later he found her dressing with minute care.

"It's time," she said, "that I took an interest in your work. And listen, you chump, when you climb out of the plane come over to me first. Then I'll be the starry-eyed wife hanging onto your arm when you're congratulated by Rod Peterson."

Merritt always considered the drive over Cahuenga Pass into the valley where the club barns were located as one of the scenic treats of Los Angeles. He sniffed the air appraisingly, and found it satisfactorily dry and warm.

"Annie's built for that. I'll be able to push her up to eighty percent of the speed of sound and stay pretty near the ground. We're going to turn on all her lights, you know, and make quite a night show."

There were preliminaries. Merritt, who had endless patience, spent the evening tuning Annie for her flight. He saw Peterson's arrival from a distance, but the details were reported to him from time to time.

The star arrived in three cars, two of which were filled with friends. The lead car contained Peterson and a female who was more dazzling than all the rest put together. It was she who delayed the tour by asking scores of questions. When they came to the un-

finished frame of VB-2, she peered at length into the drive nozzles.

"You mean to tell me," she asked finally, "that you make a rocket drive by having a narrow hole for the gases to escape through?"

"That's the general idea," Grayson explained, "though there's a design that's slightly different for each type of explosive."

"Well, damme," said the young woman, "if life isn't getting simpler all the time."

She fascinated the entire membership but it was half past nine before Merritt (or anyone else apparently) learned her name. She was Susan Gregory, a new star, just arrived from Broadway. Beside her Rod Peterson was a cold fish. At a quarter to ten her enthusiasm began to wane notably.

"What's next?" she asked, in a let's-go-home-now-Roddy-darling voice.

ANNIE was wheeled out—Annie the sleek, the gorgeous—Annie of the high tail. Susan Gregory stared with dulled eyes.

"I've seen one of those before," she said.

It was dismissal. The evening was over. Ennui had descended upon the spirit of Susan Gregory and, watching the descent, Rod Peterson showed his first real emotion.

"Tired, sweetheart?"

Her answer was a shrug which galvanized him. "Thank you very much," he said hastily to Grayson. "It's all been very interesting. Goodbye."

They were gone before most of the members grasped what was happening.

On the way home, Ilsa was as tense as drawn wire. "The nerve of her," she raged. "Coming there like a goddess bearing gifts and then pulling that stunt." Bitterly. "You've heard the last of the ten thousand, I'll wager."

Merritt held his peace. He felt himself at the beginning, not the end of temporary setbacks. And he had no intention of being gloomy in advance. By the time they reached their apartment Ilsa was deep in mental depression.

"You made a mistake marrying me," she sobbed. "I'm too old for insecurity and ups and downs."

"At twenty-eight," Merritt scoffed. "Don't be a nut."

But when he boarded the plane the

following night she had still not snapped out of her mood. The memory flattened his ego. He arrived in New York in a drab state of mind. If Grayson hadn't suggested the Waldorf Astoria he would have gone uptown to a cheaper place.

The first business man he contacted, a nationally known railway executive, listened to him as to a child, patted him on the back and promised to get in touch with him.

A textile giant, physically small and plump, kept him waiting for two days, then threw him out of the office verbally—"Wasting my time with such nonsense!" An airline president offered him a job in his publicity department.

Merritt returned to his hotel room from the final failure, more affected than he cared to admit. He had expected variations of failure but here was a dead-level indifference. Here were men so wrapped up in their own day-to-day certainties that he had not even penetrated the outer crust of their personalities. At 6 o'clock that evening he phoned Grayson in Hollywood.

"Before you say anything," Grayson said, when he came on the line, "You may be interested to know that we have received \$10,000 from—guess who?"

Merritt refused to hazard a guess.

"Susan Gregory."

That startled Merritt. But his mood remained cynical. "Have you got a check or a promise?"

"A check. But with a string attached."

"Huhuh!"

"She wants VB-TWO named after her. And we thought—well, what the heck, ten G's is ten G's. You can't beat that kind of logic. One thousand of it is on its way to you by air. How does that sound?"

It was like a shot in the arm. With a fervor approaching animation, Merritt described his new plan of action. He had made a mistake in approaching the men cold. What was needed was an intermediary, either incident or human being, to bridge the gap.

Human beings lived in separate worlds. Business executives lurked behind special concrete-like barriers, where they hid themselves from commercially minded people like themselves. The problem was to get to the human being inside. In every man there

was a spark of wonderful imagination. There he kept his dreams, his castles in the air, his special self.

Grayson interrupted at that point, "That sounds beautiful theoretically. But what have you got in mind?"

Merritt hesitated but only for a moment. "I'll need the help of the local branch of the club."

"Oh!"

THERE was silence. Merritt waited patiently. No one knew why the New York branch of the U.S. Spaceship Society had never amounted to anything. It was one of those things. A synthesis of discordant personalities, a dividing into cliques tending to stultify and infuriate the brighter brains.

In history, when such divisive elements attained national power, civilization stood still for a generation or more. How to break artificially induced immobility or retrogression? Sometimes one man had been known to do it.

The trouble was that the Los Angeles branch was annoyed at New York and was not too eager to share the fruits of its efforts. Grayson's reluctant voice came on the wire.

"All right and I'll back you. Now what's your plan?"

"What I want," said Merritt, "is all the available information about these men. Then I'd like the use of an old jet plane. I'm going after Mantin first, since he actually kicked me out of his office, and this time I'm using imagination."

The fortification that was Textile's Mantin was stormed that weekend when a jet plane apparently crash-landed within a hundred yards of his hunting lodge. The pilot, discovering that it would require 24 hours to repair the machine, was invited to remain overnight.

Bayliss, the air corporation man, was bombarded with ceramic and metal miniatures of various rocket bombs, each one accompanied by a message stressing the pure motives of the club. An ardent collector, he recognized some of the items as rare and valuable.

In Washington Senator Tinker, that sardonic glutton, finding himself the surprised recipient of a daily shipment of imported foods obtainable only in New York, grew curious and granted an interview to a persistent caller,

named Robert Merritt.

And so it came to pass that a young man attended a certain very exclusive poker session, where the average age of the players was nearly forty years above draft requirements. Senator Tinker introduced him.

"Gentlemen, this is Robert Merritt."

There was a grunted response. Merritt sat down and watched the cards being dealt. He did not look immediately at General Craig. He received two cards, an ace down and an eight up. The ace in the hole decided him to stay, though it cost him five dollars before everybody had stopped raising. His third card was an ace. He himself raised thirty dollars before the belligerent colonel next to the general stopped backing a jack and a nine with raises of his own. His fourth card was a nine, his fifth another ace.

Three aces was not a bad hand for stud poker. In spite of one of the aces not showing no one bet against him. Merritt raked in the chips. He estimated just a bit shakily that he had won about \$275, and that these men played a game that was miles out of his class financially.

His first two cards in the next hand were the two of spades and the seven of hearts. He folded and for the first time took a good though cautious look at General Craig. The great man's publicized face was as rugged in real life as his pictures showed him.

The shaggy eyebrows were shifting as he studied the cards of his opponents. His gaze came to Merritt's cards, flashed up, then down again. It was as swift as a wink but Merritt retained an impression of having been studied by eyes as bright as diamonds.

As the hand ended, the general said casually, "So it's me you're here to contact, Merritt?"

Merritt was shocked but he caught himself. General, he said, "you're a smart man."

The older man said thoughtfully, "Robert Merritt. Where have I heard that name before? Hmmmmmm, Robert Merritt, Captain Air Force, nineteen Jap planes, Congressional Medal of Honor." He looked shrewdly at Merritt. "Am I getting warm?"

"Uncomfortably," said Merritt.

He was not altogether displeased but he was also impressed. He recognized

that he was in the presence of a man with an dietic memory. He lost nearly six hundred dollars in the three hands that followed, most of it in the third hand when, in a sort of desperation, he tried to make two eights do the work of three.

When that hand was finished, General Craig said, "What are you doing now, Merritt?"

It was direct but welcome. "I'm secretary," Merritt answered, "of the Space-ship Society, L.A. branch."

"Oh!" The general's eyebrows went up. Then he looked at Senator Tinker. "You old Ssstinker you," he said. "Do you realize what you've done, bringing this young man up here?"

"Well, general," drawled the senator, "they tell me that your army boys have been putting the pressure on you from all directions about this spaceship business. I thought I'd slip somebody in the back door. What are you holding up the parade for anyway? Is the idea too big for you?"

The commander in chief growled, "That kind of stuff is all right for young men but an old artillery man like myself can't afford to come out into the open until the time is ripe."

"When will the time be ripe?"

"Let me think," said the general. "VA-TWO went four thousand miles an hour. VB-TWO is now under construction, and will be completed shortly. It is destined to carry the first human being ever to attempt to reach space itself."

"I would suggest you accept the secret offer made you by Lieutenant Turner. That young fellow's a physical whiz. If anybody can stand the extreme acceleration of your crude machine he can."

The senator's grin was broader. "General," he said, "you so and so. You're an old spacehound yourself. I repeat, when would you consider the time ripe?"

"When I'm called in. Under such circumstances I could prepare a report and read it to the President. He's not interested in printed material. Bad eyes, I suppose."

"Then we've still got to convince the President?"

"Exactly. That's your problem. And now, Merritt, there's one question I want to ask you."

"Yes, sir?"

The general was scowling. "How in— can a ship fly in space where there's no air for the explosions to push against?"

CHAPTER IV

Out and Back

S AID Serkel, "Print is nothing but a painful sensation on the iris. Print convinces nobody of anything. If you want to influence nobody have your words published in memo, magazine or book form."

He was a bright-eyed, dried-up little old man and Merritt stared at him in fascination. He sent a quick look toward Senator Tinker, found no help in the big man's sardonic smile and so he faced the old fellow again across the poker table.

"Don't you think, sir, it depends on whether or not your favorite critic recommends the book?"

"The critics," said Gorin Serkel, "are like mounds of shifting sand on top of which publishers pile books. If they acclaim a book one week you can be certain that they will give their accolade the following week to another book of diametrically opposite viewpoint. Undoubtedly the two books together will fail to influence more people than they failed to influence separately."

It seemed to Merritt that he had better produce his letter quickly. But he hesitated. They had found Serkel on the veranda of his country home and they were still standing halfway up the steps. Like salesmen, Merritt thought, with no prospect of being invited to sit down.

A little uncertain, Merritt took out the letter, and extended it. Serkel shrank back.

"Writing!" he said. He shrugged. "You might as well start unbuilding your ship right now."

"This letter," Merritt urged, "is from Professor Hillier."

"The President," said Serkel, "cannot even be influenced by his own speeches once they are made and available only in printed form."

"But how does the country continue to run?" Merritt protested. "Surely, a

mountain of documents crosses his desk every day."

"Details, yes," said Serkel. "Administrative necessities and acts of Congress—that he tolerates in the same fashion that he accepts the American dollar as good money. But nothing new."

He added with asperity, "The President expects of his friends that they will not embarrass him by peddling schemes which he will almost assuredly have to turn down."

He looked at Senator Tinker, then at Merritt. "The solution seems very simple to me. Professor Hillier is a world-famous scientist. His name will get you a hearing. His presence will safeguard you from a quick exit."

Merritt and Senator Tinker looked at each other. There was no question that Serkel was now giving them his most earnest counsel. The only thing they could do was to explain the impossibility of using Professor Hillier as a safeguard for anything.

It was a dangerous form of disillusionment because Serkel might avail himself of the opportunity to fade out of the picture finally and forever. Serkel was thoughtful when Merritt had finished describing the professor.

"So the publicized Hillier is a figment of the imagination, deadly to his own purposes when paraded in person and a flop at everything but adding and subtracting on a level approximating infinity."

He straightened. He said curtly, "Under the circumstances, gentlemen, I do not feel inclined to entertain your proposition. I—"

MERRITT had watched it coming. As he stood looking at the former presidential adviser, a kaleidoscopic memory of the two months just passed flashed through his mind. Slowly the remembrance stiffened him.

He felt no sense of egotism but Serkel didn't seem to understand that the men who wanted his help were not just ordinary human beings. They were men with a mission. They *couldn't* back down or withdraw permanently from any forward position. Merritt gathered himself.

"I think, sir," he said, "that I have not made clear the potentialities of a letter. Professor Hillier, clothed in his

ivory-tower reputation, verbally produced by an experienced persuader, can accomplish more than any stranger named Professor Hillier meeting a stranger named President Graham.

"It is my belief, furthermore, that you have not clearly realized the possibilities of a final great achievement to climax your long and famous career. So that you might better understand the situation I invite you to attend two weeks from now the most exciting experimental flight ever attempted by men. I think you owe it to the future of human kind to ensure that you at least see the first man to fly into space."

Serkel's expression was suddenly more intent, thoughtful.

"One personality on the scene," Merritt pressed on, "funneling the convictions of many minds through his own voice, 'might conceivably capture the attention of the President for the necessary minute without requiring him to read a line.'"

He saw that he had an audience again. Serkel sat down. He looked even more thoughtful. At last he said, "You and your friend and the letter are invited to stay for the weekend." He raised his voice. "Mrs. Ess."

There were footsteps. A pleasant looking woman came out onto the porch. Serkel said, "Gentlemen, my wife. Mrs. Ess, tell Jane two extra dinners until further notice. Make yourselves at home, everybody."

He stood up and disappeared into the house, mumbling something to the effect that, "The economic aspects of the Keynes taxation theory do not merit the contempt they undoubtedly deserve. I must tell the president."

At least that was the way it sounded to Merritt.

Merritt's purely personal crisis came like an atomic bomb out of the blue on the day of the test. At twenty minutes to two, with the flight scheduled to begin at two, a pale Mike Grayson hurried out of the barns and approached Merritt.

He said, "Bad news! Lieutenant Turner just phoned. His superior officer, not knowing General Craig privately gave him permission to fly VB-2, has refused him leave because of some miserable maneuvers they're beginning tomorrow. I phoned John Errol but his office says they can't locate him—he's

out somewhere on business. You were always the only other choice, Bob, so—"

Merritt's first thought was of Ilsa. Ilsa who would not understand, who would think that he had once more lightly placed her future in jeopardy.

"We could postpone it," said Grayson, anxiously.

Merritt knew better. There were men waiting in the observation hut who had come to this test for a variety of reasons. It was almost a miracle that they were present at all. No one was so aware as he that that miracle would not be easily repeated.

"No," he said quietly. "Naturally, I'll do it. But first I want to call my wife."

His call went unanswered. He let the phone ring for several minutes, then hung up, disturbed. Ilsa had decided not to come to the test.

"Somebody's going to get killed," she had said, "and I don't want to be around when they bring in the body."

It was an unfortunate remark.

The four-jet carrier plane, which was to take the rocket on the first leg of its journey, took off without incident. It climbed like a shooting star but it was only about halfway up when the pilot's voice sounded from the earphones which were embedded in the cushions beside Merritt's head:

"Grayson wants to talk to you, Bob."

Grayson was exultant. "Bob, Serkel just phoned from Washington. As you know, he decided not to come to the test because he doesn't believe in melodramatic shows. Well, he had lunch with the President today. And he's done it, Bob. He's done it."

The other man's enthusiasm seemed remote to Merritt. He listened to the details with half his mind, agreed finally that it was more important than ever now that the test be successful, and then put the matter out of his mind.

The pilot's voice said, "Ready, Bob?"

"Ready," said Merritt.

THE ship turned downward into a power dive. All four of its jet engines thundering, gathering speed, it went down to twenty-five thousand feet, then twisted and zoomed upward at more than five hundred miles an hour.

"Now," said the pilot tensely.

Merritt didn't see the door in the rear of the plane opening. But he felt

the movement as the rocket slid backward through the opening. Then he was in bright sunlight. Through the treated, tinted plexiglass of the tiny cabin he had a glimpse of the dark sky above.

For two seconds the long shiny tube continued to fall. It was not really falling. Its upward speed was about three hundred miles an hour. It was falling, however, with respect to the carrier ship and the time gap was designed to let the big machine get away.

The process was electronically timed. Tick, tock, tick, tock—WHAM! He had tensed for it and that was bad. It was like being hit in every bone and muscle and organ, that first titantic blow of the rockets.

Merritt crumpled into the cushions and the springs below and around him. He had a dizzy glimpse of the big converted bomber falling away into the distance. In one jump it retreated from giant hood to a tiny dot barely visible in the haze of sky below. It vanished.

WHAAAAAMM! The second blow was more sustained. His head started to ache violently. His eyes stung. His body felt as if it weighed a thousand pounds. It *did*. The second set of explosions was designed to exert peak acceleration. But the speed of the rocket was probably still under 2000 miles an hour.

"Bob!" Grayson's voice. On the radio.

"Yeah!" The word came hard.

"Shall we go on?"

It hadn't struck him that they might abandon the flight if he didn't react well. Curiously that brought fury.

"Blast you," he shouted. "Get going."

The explosions were radio-controlled and the third was a duplicate of the second. His body took it hard, harder than anything he had ever imagined.

He found himself puzzling blurrily about what had happened to the cushions and the springs. He seemed to be standing on a slab of metal with steel-hard metal braces pressing onto his arms and legs. Was that what happened to cushions under pressure?

It was tremendously dark outside. His vision was not clear but he could see dots of stars and, over to one side, a fiery blob. It took a moment to realize that it was the sun. He waited, cringing, for the fourth and last series of explosions.

He thought, "Oh, Lord, I can't take it! I can't!"

But he did. And, strangely, the blow seemed less severe as if in some marvellous fashion his being had adjusted to its environment of violence. The series of blows pulsed rhythmically through his bones and attuned to his nerves.

"Bob!"

He was so intent on his own thoughts and feelings that it didn't strike him right away that he was being addressed.

"Bob — earnestly — 'are you all right?'"

"Bob," he thought. Bob? Why, that's me. Impatience came.

"Why, of course I'm all right."

"Thank goodness!" The words were a whisper. And in the background, behind Grayson's voice, there was a murmur of other voices. "... Good man!" ... "Oh, wonderful. ..." Then once more, Grayson.

"Bob."

"Yes?"

"According to the duplicate instruments down here, you're now six hundred miles up, and going higher at the rate of seventy miles a minute. How do you feel?"

He began to feel fine. There was no sense of movement now. His stomach felt kind of hollow but that was the only sensation. He floated in emptiness, in silence and darkness.

The stars were pinpoints of intense brightness that did no twinkle or glitter. The sun, far to his left, was only superficially round. Streamers of flame and fire mist made it appear lopsided and unnatural.

As Merritt blinked at it the sun came past him and turned away to the right. He watched it amazed, then realized what was happening. The rocket had reached its limit. Held by Earth's gravity, it was turning slowly, twisting gradually, falling back toward Earth.

Merritt said quickly, "How high am I?"

"Eight hundred and four miles."

It was not bad. He had topped the farthest limits of the atmosphere by more than three hundred miles. He had looked out at empty space—through protected plexiglass to be sure—but looked. Soon he would have to start

thinking of getting clear of the tube, which was destined to fall into the ocean.

At forty thousand feet above sea level he set off the explosion that knocked the cabin free of the main tube. At fifteen thousand feet he bailed out of the cabin. His parachute opened at five thousand feet. He came down in an orange grove and walked to a filling station. The attendant charged him fifty cents for using the phone to call Grayson.

He was back on Earth all right.

THE physical check-up at the field was extremely thorough and it took a long time. When it was over there were toasts and congratulations. It was nearly seven when Merritt reached the apartment.

He came in, carrying a bag of groceries, but it was evident that Ilsa had been shopping too. The pleasant odor of roast beef came from the kitchen.

A paper with screamer headlines about the flight lay on a French chair. The sight relieved Merritt. She knew.

Ilsa came out of the kitchen. She was smiling. "How do you feel?" she asked.

"I've been pronounced one hundred per cent."

She clung tightly to him as she kissed him but that was her only show of emotion. "I'll have dinner ready in a minute," she said.

While they were eating Merritt told her, with more excitement than he had originally felt, about Serkel's success.

"The President," he said, "has assigned six thousand dollars for the development of an atomic drive for space-ships."

"Six thousand dollars!" said Ilsa.

The color went out of her cheeks. "Is that all he got. Six thousand dollars!" she exclaimed. "Why, in Congress, members each session vote hundreds of thousands of dollars for each other's pet schemes without even knowing what they are."

"And you people are getting a wretched six thousand dollars to build a spaceship, a tribute no doubt"—furiously—"to the fame of Professor Hillier. That's about the smallest amount the government has ever used for the brush-off."

Merritt protested, amazed, "But you don't understand."

"I understand only too well. It's the same story all over again—no money." She was so agitated she couldn't go on. Tears started to her eyes. She shook her head in frustration and hurried out of the room.

Merritt thought, "Well, I'll be a—"

He went on under his breath, "But you *don't* understand, Ilsa. According to Serkel the President was aware that it was an historic occasion. So he symbolized it. He assigned exactly the same amount of money that the atomic energy project had first received. It was like saying unlimited funds would be available."

Merritt sat, eyes closed, tremendously disturbed. If he told her now it would be a case of buying back her love. He remembered suddenly that she had divorced her first husband just before the man struck it rich. He had a vision of her doing it again—and knew that he couldn't let it happen.

Footsteps sounded. Ilsa came back into the room, straight over to him. She buried her face against his knees.

"Bob, I couldn't help it. When I thought of you taking that terrible risk for nothing—"

She climbed to her feet and sat down on his lap. "This will sound melodramatic," she said, "but this afternoon I swore to myself I would never again mention money to you."

Merritt hugged her. "That," he said, "is silly. There's something wrong about a woman who doesn't drive her husband."

"You're a wretch," Ilsa said cosily. "But I still love you."

"Good," Merritt said.

He kissed her neck to hide his broadening smile.

Later, he would tell her that men would soon fly in atom-powered spaceships, first to the planets, then to the far stars.



A World at War With Itself!

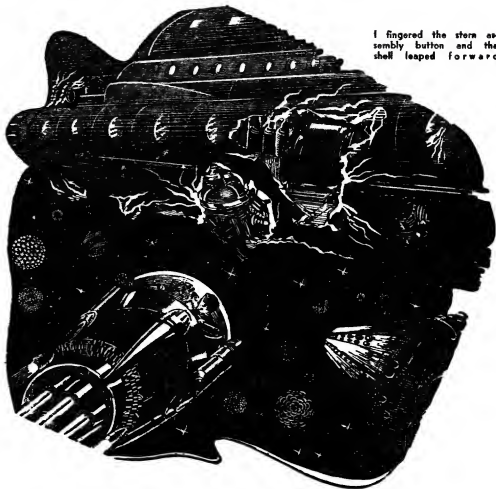
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I fingered the stern assembly button and the shell leaped forward

SALVAGE

By CLEVE CARTMILL

*Jake Murchison throws his life into the scales of fate
when confronted by a derelict with a cargo of riches!*

DECCELERATE," I said to the pilot. He turned his face towards me. It was like an oval of baked mud with tiny cracks running every which way, a lump of red sandstone for a nose and great big emeralds for eyes. Pat was an old-timer, and he had taught me all I know about flinging a ship through space.

"You know," he said dryly, "what that's gonna get you. Amos T. Grubb will be stabbing you with question marks. You sure you know what you're doing, Jake?"

"No," I said, looking at the image on the screen. "But that ship's a derelict, and I've got a troublesome memory."

Pat shrugged and kicked in the nose

jets. The *Dolphin* slowed and I began to weigh my normal 180. It slowed more and I got really heavy.

"It's your funeral," Pat said.

How almost right he was.

Amos T. Grubb clambered into the control room, leaning back against the forward pull, his thin pink face a bristling exclamation point. Cap was right behind him, unhurried as usual, his square face showing only a mild curiosity.

"What are you?"—Grubb began in his double-edged voice, glaring at Pat.

"I'm responsible," I broke in. "Don't pick on Pat."

He transferred the glare to me. "Jake Murchison, have you gone mad?" he asked as if he really wanted to know.

I waved at the screen. The drifting hulk almost filled it now. You couldn't see anything but the silhouette but my memory supplied a gaping hole in her side. That hole had a name I couldn't quite remember but I knew where to look. I pushed past Grubb and Cap, clawing my way along the passage.

"Be right back," I said. "If I'm right we're rich."

I made it to the circular recreation room and found the book—*Space Pirate*, by Clem Gardener. I took it back to the control room, fighting against the deceleration.

"If any of you guys could read," I said, "you might remember. Unless I'm mistaken that's the long-lost *Astralot* drifting out there, with one hundred and eighty-five tons of herculium aboard. Whether you can read or not you know what herculium is—or was. There's a photo in here somewhere."

I flipped the pages, found it. Yep, she had the high tail fin popular a hundred years ago. The silhouette matched the pulsating image on our screen. I showed it to Cap and Grubb.

"As soon as we get alongside," I said, "we can verify her name. But I don't think there's any question. This is it. Her cargo could buy a planet—any planet."

Pat turned his wrinkled face to me. "Her—what?"

"Herculium. Time was when it was dime a dozen but Hercules Phamign died without revealing his process. Now there ain't no more. That, friends, is it. One hundred and eighty-five tons of that alloy will construct—oh, I don't know

how many—warships which can't be—how do you say?—penetrated. I guess I mean invulnerable. Anyway, however you look at it, this, my friends, is it."

Amos T. Grubb looked at me like I was a piece of wet clay he wanted to strike a match on. "If," he said.

"If what?"

"If it's there."

"It's a gamble," I agreed.

"Nonsense," Grubb said. "We have a job to do that doesn't have any ifs in it. I've invested a great deal of money in this salvage venture. I mean to get it back. Throw in the drive," he said to Pat.

Cap caught his breath. "I give the orders here, Mr. Grubb—or Jake. Let's hear more what this is about. Then we'll decide."

I FOUND the place. I read aloud, "On November twenty-ninth we spoke the *Astralot*. We maneuvered to bring our port broadside battery into play and blasted a tremendous hole in the treasure ship. All aboard must have died instantly."

"I led the boarding party that found the treasure vault. Its massive door yielded readily enough and we stared at the greatest treasure ever assembled in history."

"At that instant orders came to return aboard. Our detectors had picked up a space patrol. We made a careful fix on the derelict's position, estimated her rate of drift, direction and so on and fled to our asteroid base."

"We waited, straining with eagerness and dreaming of vast riches, until the space patrol was sure to be gone. Then we returned cautiously to the scene."

"We never found the *Astralot* again."

"She must have fallen into an uncalculated orbit. We searched that area of deep space for two years. We robbed and murdered for funds to continue that tremendously expensive operation. We were caught by the space patrol in the early part of the third year."

"But now, as I sit in my cell writing this, I feel once more the deep thrill when I think of the *Astralot*, yours for the finding, drifting helplessly in—"

"And so on," I said. "We'll be close enough in five minutes to make sure. That treasure is something! I want it."

Cap looked thoughtfully at me. "We have no equipment to work in space,

Jake. All our stuff is for the mine on Pluto, high-pressure stuff for working at eight thousand feet underground."

"I'll find a way," I said.

"Meanwhile," Amos T. Grubb said in his abrasive voice, "we void our contract on Pluto. Space Salvage, Incorporated, will then be out of business. And I'll be ruined. I won't stand for it. A bird in the hand, I always say—"

"Always is right," I said. "I know, Mr. Grubb. You've got a stake, all right. If you hadn't stepped in with dough we couldn't have accepted this Pluto salvage contract. And we're fixed to fulfill it. That'll get us out of the red."

"But this *Astralot* job will put us on Venusberg's main drag for life. Captain Lane and I can retire and live the life of lecherous ease we want. We can pay you back with a tremendous bonus, junk the *Dolphin* and have fun."

Grubb turned to Pat, the temporary glow in his eyes fading. "Throw in the drive," he ordered once more. "I'm paying for this trip, and I have a right to decide what—"

I grabbed him by a shoulder. "I'm bigger and younger than you," I said. "If you try to give one more order I, personally, will fling you in the brig."

What happened was certainly unexpected. I didn't even see it happen. First thing I knew, I was flat on the deck and if my jaw wasn't broken it was a miracle. Quite a number of constellations were flickering behind my eyeballs. I recognized Orion as it flashed past.

It developed later that he had hit me with his fist. I didn't believe it at first but then I tried to explain it by the fact that I was forward of him and his blow was aided by the pull of deceleration. But that didn't help my pride much. I was just plain old smacked in the kisser and it nearly killed me. That little man was a sockeroo.

I started to get up but when I saw it wasn't necessary I dropped back against the bulkhead. Cap Lane had Grubb in his arms, lifted off the deck, and the little guy was yelling and kicking. Pat turned away from the control board long enough to sap Grubb with a rocklike fist and Cap laid the still form on the deck. I got up.

Grubb was out about half an hour, and in that time a number of things happened, none of them helping my aching jaw.

Cap looked down at the unconscious body. "Well," he said reflectively, "I've always wondered what it would feel like to be an outlaw. Looks like we're going to find out. You know what inflicting bodily harm on a passenger gets you."

"He hit me first," I said, defending Pat. That's what I meant to say anyway but it came out sort of scrambled.

Cap rubbed the corners of his chin with a hand that was almost as weathered and large as Pat's. He pulled his heavy white eyebrows together over his startling blue eyes. His motions were slow and measured, as were his words. Cap never hurried.

"You laid hands on him, Jake. That's the phrase he'll use in court. He could make a self-defense plea stick. And that means loss of license, a fine and, if he sues for damages, he can take everything we've got."

"Leave him to me," Pat said, peering through the starboard port. "I'll fix him. There she is."

WE followed his gaze and saw the dark hulk of the *Astralot*, looming five hundred yards off the starboard bow. Pat maneuvered alongside, matched the derelict's drift and cut off the power.

The hole was there, a great tear that punctured the ship to her vitals for almost all of her mile-long hull. Jagged points of metal along her port beam looked like a mouthful of filed teeth.

"That certainly rules out getting her into operation," I said. "We've got to salvage her here."

"There's the name," Pat said. "She's the one, all right."

Cap said, "More than a hundred years. Suppose somebody else has looted her and not reported it?"

"I shrugged. "It's a chance. Not a big one, I think. If herculium had showed up in any quantity the whole Solar System would know about it."

"Here's another thing," Cap said. "Just how do you propose to get aboard her? We've got no space equipment."

"Nobody would listen to me," I said bitterly. "I wanted to load a complete outfit."

"I-told-you-so's don't do any good, Jake. We had to choose between that and the Valadian drill. There isn't room on on this ship for even a runt mouse to stow away."

"Yeah, I know. Well, I propose to call Jenkins in on this. He's a clever boy."

"How'll you get him awake?"

"We've got some Somnol antidote in the medicine chest. He's been out long enough for it to act."

"And then," Cap went on deliberately, "we drift along here while you try to figure out something. Meanwhile we do stand to void the Pluto contract. You know our deadline for beginning operations."

"If I can do it in twenty-four hours," I said, "we can still make it. Though if we get that herculium aboard, I don't give a hoot if we never see Pluto. Except it would make Junior happy." I gestured at Grubb.

"There's another problem," Cap said. "What'll we do with him? He's going to be more trouble than a tank full of Venusian rock sharks."

"Leave him to me," Pat suggested again.

"I think not, Pat," Cap said. "If we don't show up with Grubb in good shape we're really in trouble. And if we do," he said wryly, "we're in a mess. Well, Jake, it's been nice being your partner."

"I got us into this," I said. "I'll get us out."

"I hope so. I truly hope so. My mother never raised me to be an outlaw. That's what she always said. 'Son, be a good citizen and nothing bad will ever happen to you.' If she could only see me, now," he concluded mournfully.

"I'll get Jenkins," I said, "and one of those mudders—that giant, what's his name, Carroll?—to stand guard over Junior. Then we'll get moving, fast."

Jenkins was near the door of the dormitory, lashed to his bunk like the other two dozen salvage men. I think each man snored at a different frequency. I injected the antidote and stood back. His hands were free, and I didn't want him to bust me one when he got the preliminary delirium that always accompanies artificial awakening.

He threshed around some, cursing in back-country Mercurian dialect, but when he focussed he gave me his slow grin framed in freckles.

"There already, Jake?"

"Nope." I showed him the needle. "This is special. Come and help me with Carroll."

This mudder, Carroll, was nearer seven feet than anything else but a

seven-foot pole and he was built like one except for his shoulders, which are what a mudder needs. They were a couple of persecs wide and his arms were like towing hawsers. I needled him and the snapping of his lashings were like the popping of the Valadian drill.

The next thing I knew Carroll was holding me in his arms like I was a baby, saying soothing things in a sing-song voice. If his face hadn't looked like the dark side of the Moon, you'd have thought he was a mother.

"I'm so damned sorry, Jake," he crooned. "I didn't know, I couldn't know."

I rubbed my jaw. "The next guy that socks me," I said, "will feel the full fury of my wrath—as soon as I wake up."

CARROLL wouldn't let me walk. He carried me into the control room and put me carefully in the pilot's seat. He blinked at Grubb's unconscious body and I told him what to do. He went out with the little man under one arm.

I briefed Jenkins and he stared thoughtfully at the *Astralot*, running a freckled hand through his straw-colored hair.

"Just how do you propose to board her?"

"I thought maybe you'd come up with a brainstorm," I said.

Jenkins wagged his head. "All the stuff we've got is designed for opposite conditions, to work deep underground under high pressure."

"We've been over that," I said impatiently.

"We could take a fix on her, run back to base and get some space outfits."

I showed him the book. "Captain Stag lost her and you can bet he had a better navigator than we have. Besides, we lose the Pluto contract for sure if we go back and we wouldn't even know if the treasure was aboard, assuming we could find the ship again."

Jenkins read the passage. "That Captain Stag was quite a boy. Well, if Gardener can be believed"—he tapped the book—"the stuff was aboard. Our first step is to see if it still is. In what, though?"

"The Look-See?" I suggested.

He stared at me. He formed a "no," with his mouth but the intercom furiously cut him off.

"Captain Lane!" the voice of Amos T. Grubb said angrily. "I demand to know what my status is. Am I under arrest? If so, on what charge?"

"Well, not exactly, Mr. Grubb," Cap answered slowly into the grille. "I just want to keep you safe."

"From what? That idiotic first mate partner of yours? I can handle him. I did when he laid hands on me."

I felt my jaw.

Cap muttered, "I told you so," to me, then spoke into the intercom. "I think it would be better if you stay where you are," he soothed.

Grubb would have none of this. "I demand freedom from this big ape. I want my legal rights or I'll have you up before the Board. I mean it."

"You could," Cap admitted. "Well, all we want you to do is stay out of our hair till we discuss our problem."

"I promise nothing! Nothing but trouble, that is, if I am not instantly allowed the freedom of the ship. I am concerned in that problem, as well as you. I have a voice in the final decision."

"Okay," Cap surrendered. "Let him go, Carroll." Cap wagged his silvery head. "Something none of us thought of, Jake. You waked two extra mouths to feed. Going to be awful short rations before we reach any port."

"I'll put 'em back to sleep," I said, "and hope I can guess the right amount. Looks like neither one is going to be any use."

"Keep your shirt on, Jake." Jenkins grinned at me. "I started to say the Look-See wouldn't do but I have figured out a gadget. Can I tear up that Valadian drill?"

Grubb bustled in to hear that. His mouth dropped open and his thin face turned red as a cooling star. "Do my cars play me false?" he asked in a gentle voice full of cracked ice. "Do you," he said to Jenkins, "whoever you are—"

"Jenkins," I broke in. "Field technician—Grubb, financial backer."

Grubb nodded curtly. Jenkins said, "Likewise."

"Do you seriously intend to use the most valuable piece of machinery on board for this hare-brained scheme?"

"We'll pay you for it," I said.

"With what?" he asked nastily.

"High-vacuum doughnut holes?"

"Somebody's got to decide," Jenkins said. "I can make the Look-See ma-

neuverable if I can have that compressed air assembly."

We all looked at Cap, even Grubb.

Cap stared out the port at the millions of stars off our bow. It was a long time before he spoke and nobody broke the silence. "It definitely means," Cap finally said, "losing the Pluto job if we tear up the drill. It's a long gamble."

"If the treasure is there, we have to devise a way of getting it out. If it's in crates or boxes we might snake it out with a grapple—if we can get a grapple into the cargo hold. But, once we go into this, it's goodbye Space Salvage, Inc. Of course, it might be goodbye anyway." He looked at Grubb. "Are you going to bring charges?"

"For assault?" Grubb's voice had its normal rasp again. "Not if we proceed at once to Pluto. There is certain money to be made from that operation. This"—he gestured at the *Astralot*—"may be a fairy tale, written by a jailbird trying to recall high adventure. I never heard of that ship before."

"I have," Carroll rumbled gently in his deep voice.

NONE of us had heard the giant enter. We gave him our ears. He could have had my shirt if he'd asked.

"Clem Gardener," Carroll said softly, "was my grandfather on my mother's side. The *Astralot* was really lost and she had the stuff aboard. I looked up the old records."

"As far as I'm concerned that settles it," I said.

Cap nodded. "Goodbye, salvage company," he said.

"And a lot of other things," Grubb snapped. "I see I'm outvoted but when we reach port I'll have your licenses, your ship and maybe your treasure too. Jake, you're a young man with a fine future if you use your head. Don't do this thing. If you do, so help me, I'll ruin you."

I tried to tell him to go to blazes. I got the words all set in my mind and pushed them into my throat. But they stuck there. He meant what he was saying. And, I thought, suppose the treasure isn't aboard and suppose if it is we can't get it out.

I gulped the words back and stuck my hand out to Cap. We didn't say anything. We didn't need to. I motioned Jenkins and Carroll to follow me.

JENKINS, as usual was right. The big observation shell didn't blow up. It was a tubular gimmick about fifteen feet long, three feet in diameter, with inlets for oxygenated air and a place to peer through. It was made of chilled steel and quartz. It had a lifting eye on the head for lowering it down a shaft but we shifted this to the tail end for a hauling line.

It wasn't designed for working in a vacuum but it sprang no leaks as I slid gently out of the airlock toward the *Astralot* and the full blinding glory of the skies poured through the observation head from all points.

I was cramped for space, what with the control panel plus the compressed air tank. We'd finally installed it inside for fear it might snag if we welded it to the surface of the shell. The air hoses, jury-rigged "jets," we fastened to the outside at calculated angles.

I fingered the stern assembly button and the shell leaped forward. The career of Jake Murchison, recently a salvage man, almost ended there and then. I barely had time to blast with the nose jets and stop the Look-See from smashing the observation head against the *Astralot*. The head was a half globe of six-inch quartz but even so that blow would have smashed it.

In spite of the growing cold I sweated as the shell became motionless. Carroll's gentle voice came out of my talker.

"I told you," he said. "Touch those buttons easy, like they were cobras, say. You were lucky this time."

"Are the cables okay?"

"Yeah. We gave you plenty of slack. Jenkins figured your first blast might be a little too juicy."

"Jenkins thinks of everything. Give me some tension on the line. I'm heading for the port. Good thing your pirate grandfather left it open."

I jiggled the starboard bow jet and the Look-See's nose swung slowly. I let it drift, stopped it with the port jet when the opening was dead ahead. I was feeling the cold now.

I looked at the control panel, fixing it in my mind. I wished I'd had a little time for practice, to learn where each button was, so I could find each of them with my eyes shut. Inside that vast ship I was going to have myself a job where a sure, quick touch might be necessary to keep me out of the obits.

I jogged the stern jets and in a couple of seconds I was inside, the big headlamp knifing through the complete blackness.

I slid gently ahead to where the entrance ramp intersected the main corridor. I estimated the space, and thought maybe I could turn the fifteen-foot hull without fouling the drill assembly mounted on the stern.

I got the hang of the buttons and played the keyboard like a piano—but plenty pianissimo. Inch by inch she advanced, swung, scraped the walls, drifted free, swung.

Then I was looking down the main corridor. But only for half a second. I clenched my eyes and yelled.

"Haul in!"

"What's the matter?" Carroll asked instantly.

I gulped back my nausea. "Never mind! Haul handsomely!"

They inched me out, with the hull scraping and complaining. I opened my eyes, panting.

"What happened, Jake?" That was Cap's voice, full of deep concern.

"Bodies," I said, gagging over the memory. "I can't go down that corridor. They're bobbing around everywhere. Even if I could get through, I wouldn't try it. Did you ever see a hundred bodies suddenly exposed to deep space?"

"No," Cap said. "And I don't want to."

"Carroll's grandfather must have had a steel stomach."

"But look, Jake. We've staked the works. If you don't get in there we're sunk."

"Bring me aboard. I'm cold."

THEY looked at me with disappointment—and disapproval. Cap put it into words.

"Perhaps one of us should try. I don't have a squeamish stomach."

"I'm not ashamed of the way I feel," I said. "And I don't even want to talk about that corridor. It would have to be cleared before the Look-See could make it, anyway and that would take a month with the equipment we've got. I'll have to go through the side."

Jenkins added a frown to his freckles. "Is there a hole big enough? If there is it'll be dangerous. Those jagged edges would slice your hauling line."

"Any other suggestions?" I was still

cold and all this talk put an edge on my voice.

"No," Jenkins said shortly.

We had a look at the *Astralot*. "There," I said, pointing. "I can get through that opening. Put our port in line with it, Pat, so we'll have a straight haul. Also I've got to have some heat in there."

We rigged up a suit of heavy underwear, wrapped with resistance wire with a rheostat in series. I experimented with it, found it satisfactory and got back into the Look-See. We tied my underwear circuit in with the headlamp and I was off again.

Getting inside was simple enough. I turned the headlamp from side to side, examining a mess of broken machinery and collapsed bulkheads. "Put Carroll on," I said to the talker.

"Yeah, Jake," he said.

"This seems to be an auxiliary engine room of some sort. Did you ever see a blueprint of the ship?"

"Yes, I know my way around pretty well."

"If you weren't so big you could do this job yourself. Well, where do I go? There's a blasted door off a corridor leading aft and a busted bulkhead leading forward."

"Aft," he said. "And not far. Keep a sharp lookout to starboard. You ought to see an open door."

"Okay. A little tension on the line."

Jenkins broke in. "We don't dare, Jake. Once you're at an angle to us, we'll have to slacken off and hope the line doesn't get fouled on the ragged edges."

"Just how," I asked, "do you expect to get the stuff out, then? Everything's all broken to bits in here. If you can't pull a hauling line taut you'll sure have trouble snaking a grapple through."

"Maybe it's sentimental," Jenkins said, "but I have a little more regard for your safety than that gimmick magnetically attached to the Look-See's hull. We'll have to snake it through even if we have to clear out the broken machinery. But I don't want to take a chance on the hauling line right now. Anyway, go on in and have a look."

"Sheer sentimentality," I said. "But thanks."

I played my keyboard, negotiated the turn and floated down an empty corridor. I saw an open door. I angled the headlamp inside.

And there it was.

Herculium. Stuff of the lost process. Nothing known could penetrate it—neither disintegration rays nor the impulses from the cumbersome Atomic Reintegrator.

That little man with the club foot, Phamign, once processed himself a process and said, "The devil with everybody!" when they tried to find out how he did it. He was offered. Oh, yes, he was offered and offered. And then he died. But before he kicked off he foundried a secret shipload for the third planet of Arcton.

And sent it off on the *Astralot*. So the histories say.

I was looking at the greatest fortune perhaps ever assembled in one place. I yelped once.

"It's here. We're in, kids!"

I could hear them cheer. Carroll said, "Start sending it out."

That's when my heart sank. The fortune was in pigs, slick and gray, with beveled edges. My grapple was a tong affair, designed to pick up large rough objects such as crates. It could never hold even one of these pigs. And if it could it could only take one at a time, which meant a round trip each time for me, to drop it, return to the ship and attach it again.

"I guess we're whipped," I said. I told them what I saw and thought. I could hear a concerted groan. "I'm coming aboard. I'm dropping the grapple. Haul it in."

I released the grapple and began the delicate job of negotiating the corridor backwards, by feel, guesswork and memory. I had a bad time at the turn, but scraped free and let them take over with the winch.

We were a sad quartet on board. Amos T. Grubb put in his two cents.

"If you had listened to me," he began. He stopped, leaving the obvious unsaid.

We were so low nobody even snapped at him. Finally Carroll made a despondent suggestion. "Does anybody know if herculium responds to a magnetic field?"

We leaped at that like hungry hounds. We took the library apart, book by book, and found nothing on it.

"Let's try it, anyway," Jenkins said. "If it doesn't work we're whipped."

I hated to say it, but I had to. "That's no good, boys. I can't get the Look-See

inside the treasure room. The corridor's too narrow for a right-angle turn. I can barely squeeze through from that engine room."

That threw everybody into another spin but Jenkins came up with the answer. "The arm on that drill," he said. "We can mount it on the nose on a hinge arrangement. We'll fold it against the shell so it doesn't add to your length, and stick a control inside."

"More equipment," I said. "There's barely room enough to breathe now. Okay, I'll scrunch a little."

SO, a couple of hours later, I was inside the derelict again. I jetted gently to the corridor, swung the nose starboard, eased forward—and stuck. I kicked the nose jets. Nothing happened. I kicked full blast. Metal groaned. I stopped. If I tore the hull I would cease to have any interest in—anything. I thought of those bodies and gagged.

"I'm stuck," I said. That big magnet is fouled overhead. Haul away handsomely."

I could feel the gentle tugs, then a sharp *spang!*

"Oh, cord!" Jenkins' voice whispered.

The line had parted. Well, this seemed to be it. I was wedged firmly, couldn't blast loose without wrecking my only protection. And the worst of it was I was going to have plenty of time to think about it. There wasn't going to be anything quick about it. It would be a toss-up which ran out first, my air or my heat. I would either suffocate or freeze or both. And even if I'd had a knife there wasn't room enough for me to get my arm free and cut my throat.

I cut off the headlight. "Any suggestions," I said and if my voice shook, so what, "will be gratefully received."

"Give me the picture," Carroll said.

"I can't see what the trouble is but it feels like the magnet is hooked on some projection."

"Can you swing either way?"

I tried it, port and starboard. Nothing but groaning metal. "I've got enough power, maybe, to break loose but I'll tear a hole in her. You know what that means."

I could almost feel his shudder. Then he said sharply, "Idiot! I mean me, Jake. When I threw the juice to that magnet, I might have left the switch on. Try it."

I did and instantly the Look-See

swung free. "Saved by the bell," I said and I was almost crying. "Here we go again."

"Thank heavens!" Carroll stammered and I was sure he was blinking. That big gentle giant, that dope.

"If you hadn't thought of that—" I said. "Well, I owe you a drink, fella. Now on my left, ladies and gentlemen, we have that colossal treasure of the ages, millions and millions in little gray pigs. Watch closely, now. See how I lower the arm of the magnet. Ah, contact. Now see how I—"

I broke off. I was afraid to flip the switch. What if the magnet wouldn't pick it up?

"Well?" Cap demanded.

"All right. I got scared. This is it."

I flipped the switch. Nothing changed. The magnet was in contact with about six pigs. I lifted it.

I couldn't believe it even though I saw it. Almost a hundred bars—ninety-five, we counted later—clung to may magnet. Of course, they were weightless here and that accounted for it. But it was startling.

I felt wrung out. I was sweating all over. "It's—it's okay," I whispered.

The rest was routine. Under pneumatic power I backed and filled and I dodged the overhead magnetic trap by extending the arm ahead of me. There was a tendency for the load to slip to one side or the other, responding to the call of magnetism, but I got so I could almost play tunes on my buttons, nudging the nose each time the magnetic field drew it toward one wall or the other.

I refused to think about Grubb and his threats. He had us by the short hair and maybe he could even take our treasure. We had broken the contract and in this business, where fulfilling contracts often means saving lives and valuable property, penalties are fantastic. And rightly so.

We finally got the whole load aboard, distributed so the weight wouldn't be concentrated in a small space and maybe drop through the hull when we hit gravity. Cap, Jenkins, Carroll and I each held onto one pig. For sentiment. We went into conference.

Pat got us under way and we looked at Grubb.

"What are we going to do with him?" Jenkins queried.

"Are you still planning to sue?" I asked.

"Of course not," he said sweetly. It sounded strange, coming from him.

I looked at him sharply and saw the joker. That sweetness was a mask, a very thin mask for what lay underneath. You could see it smouldering in his eyes.

"Just what do you mean by that?" I asked.

"It's very simple," he said happily. "I put up the money for this trip. I bought equipment you didn't have and couldn't buy. If it hadn't been for me you wouldn't be here and you wouldn't have a treasure aboard. Am I correct?"

"Mmm, yes," Cap admitted. "But I see what you're getting at, and it won't work."

"But it will," Grubb chortled. "By interstellar law monetary gains of a chartered ship—aside from purely contractual gains—belong to the charter holder. Any accidental increase in the expedition accrues to me."

I looked at Cap and I guess the same thing was in my eyes as in his—deep, bleak despair. The joker—and what a joker. I had darned near killed myself for this.

NOBODY spoke for a long time. Not that we had complete silence. Grubb's chuckles broke that.

Pat turned away from the board. "I asked you before—let me handle the little rat."

"Wait," Cap said. "Let me think."

"Why?" Jenkins asked. "We've got to kill him. We have no choice."

"And how would we explain it?" Cap asked.

Grubb seemed more amused than anything else. "Yes, how?" he asked pleasantly. "The story will help pass the time until I come into my—ah, inheritance."

"I know," Jenkins said suddenly. "It's no problem. We put him in the *Astralot*. What's one more body among others? We simply shove him through the lock, and then nudge his body aboard with the Look-See."

"Somebody else, not me," I said. "I've seen bodies that—"

"That doesn't explain his absence," Cap objected.

Grubb's grin got a trifle uncertain. His eyes flickered between Jenkins and Cap.

"It's simple," Jenkins went on. "We did find a derelict. We *did* salvage her cargo with make-shift equipment. Poor Mr. Grubb, whom we loved like a brother, got too anxious and exposed himself to space.

"He went aboard first, see, and tried to get out of the Look-See. When we hauled it back aboard his body snagged on something, and we were unable to recover it." He addressed an imaginary board of inquiry.

"And, gentlemen, we shall be happy to prove this—if we can find the derelict." His voice became its normal biting self again. "And, of course, if anybody insisted on that, well, the *Astralot* would simply have vanished again. We'll phony up the data on our log about the location of the derelict and nobody would ever be able to find her."

Grubb wasn't grinning at all now. He was kind of white.

"I won't phony up my log," Cap said. "No need to, anyway. We can actually stick him on a snag. You've got something, Jenkins."

"Good Lord, men!" Grubb quavered. "You can't—"

"Shut up!" Pat snarled. "Want I should put him in the airlock, Cap?"

Cap began to grin. "No. No need. Look, Grubb, your status on board is as a passenger. You didn't need to come along and in a sense you paid your way. The Board might award you an interest in the treasure but I don't think it would be very big after we tell how you tried to thwart us and described your sweet disposition. Passengers, you well know, have no interest in accidental gains, as you call them."

Grubb had listened to the first part of Cap's speech but I don't think he heard a word after the first "passenger." He gazed wonderingly at Cap and his eyes were glazed.

"You—you could have done it," he whispered. "You could have got away with it." He was silent for a moment, then shuddered. His voice had its natural rasp when he spoke again. "I suppose an apology is in order?"

"From whom?" Cap growled.

"Me, of course," Grubb snapped. "For being greedy. I—I do apologize, gentlemen. And I thank you, Captain Lane, for—I know it sounds melodramatic, but it's true—for saving my life."

"Whatever that's worth," Jenkins

said in disgust.

"Thank you," Grubb said acidly. "But I am going to sue you, nonetheless, as a matter of principle."

We were shocked, all right, but not surprised. It was typical Grubb. And you kind of had to hand it to the little guy. He had courage, to stick to his principles when he knew we could dispose of him neatly.

"But on what grounds?" Jenkins asked in a puzzled voice.

"Breach of the Pluto contract!"

"Ain't we headed for Pluto now?" Jenkins asked. "All I have to do is put that drill back together."

"You can't," Grubb said, as if he were talking to a three-year-old, "that is a secret known only to Valadian engineers. Didn't you ever hear of the Valadian monopoly?"

"Yeah, but *my* grandfather invented the Valadian drill," Jenkins drawled.

Grubb was neither pleased nor dis-

pleased. "Very well," he rasped. "I—" he looked helplessly at us and, for the first time, sadly—"I cannot prosecute."

I felt sorry for him. He was so determined to be nasty and it meant an awful lot to him. You could see that just by his expression. Then, too, I like a fighter. The others were now looking at him with more admiration than amusement.

"Mr. Grubb," I said, "A guy who goes all out like you do really deserves something for a tough battle. Here, I'm going to give you this pig. Booby prize." I pushed it toward him.

"No, Jake," he said with a faint grin. "I'm just a passenger, remember? And"—he rasped in his old manner, "—I'm not a booby!"

He pushed the pig back at me, hard. It had no weight but it had plenty of momentum. I tried to duck and the last I remember was Pat's, "Oh, Lord! Right on the button again!"



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A Date to Remember

By WILLIAM F. TEMPLE

BELL was ostensibly reading *The Week in Washington* and secretly worrying about something that wasn't in the newspaper at all when the phone rang. He reached out from his armchair and took it.

"Hello . . . Oh, hello, Mick. Well, I didn't want to go out tonight. Is it really important? Can't wait till the morning? . . . Well, I don't know—hang on a minute."

He clapped his hand over the mouthpiece

and looked across at his wife who was in the opposite chair. She was knitting calmly.

"Pet," he said, "give me six reasons why I can't go out tonight. Quick."

"There aren't any reasons and it's no good lying to Mick anyway," she said. "You know he can read anyone like a book. If he says it's important you can bet it's important."

"Hey, are you my wife or his? Co-operate, darn you!"

Lives of great men all remind us—that there are certain clues to greatness which still have to be understood. . . .

"Just tell him plainly you don't want to go."

Bell grunted and addressed the receiver. "If it's all the same to you, Mick, I'd rather not. You see, any moment now something might happen..."

"Nothing's due to happen for three or four days yet," said his wife, joining up a fresh ball of wool.

"All right, Mick," said Bell wearily. "You don't have to keep at me. My wife's on your side anyway. I'll come right away. 'Bye.'"

He went and got his hat and coat. He pulled the window curtain aside and took a peek at the black night.

"Raining like crazy," he said. "Bess, you're a double-crossing, heartless she-cat."

He bent and kissed her hard. And I love you very much," he added.

He paused at the door for a final injunction: "If anything starts, ring me right away."

* * * * *

The moment Stanley Bell stepped out of the yellow cab it was as though someone had yanked out the bathtub plug up in heaven. The rain had eased to a drizzle, but now it came down with a woosh. It bounced up off the sidewalk like rubber. Bell had twenty feet to cover between the cab door and the entrance to the apartment building. He ran but he might as well have lain full length in the gutter—he could have got no wetter.

"Filthy night," he said to the elevator attendant. "Michael Grahame's apartment—the penthouse."

The attendant slammed the gate and made no answer. He'd been on duty a long time and felt tired. He looked at the fast-growing pool at Bell's feet, knew he'd have to mop it up and felt more tired.

As the elevator mounted Bell thought about Michael Grahame.

They'd been friends for twenty years and all of that time Mick had climbed as steadily as this elevator. From scholarships to college, from college to study in the top drawer clinics of psychiatry in Vienna, from Vienna to Atlantic City and private practise and authorship—then on to New York, some measure of fame and wealth and this penthouse on upper Fifth Avenue.

Symbolically Mick was roof garden and Bell was roughly fifth floor, though they'd started together at ground level. But Mick didn't look at it symbolically. His values

never changed. That was why their friendship endured. And Stanley Bell prized that friendship as he prized nothing else except his wife's love.

WH Y did he so regard Mick? As the elevator whirled up he analysed the feeling. It was because Mick was reassuring. He represented firmness and sanity in the chaos of dying faiths, toppling values and the growing greeds and fears of this world. The world was going crazy because of the thousand frustrations of a thousand desires.

Mick's sanity and strength lay in the fact that he never seemed to want anything, that he was never frightened to give. If you coveted the Delacroix over his mantelshelf he would give it to you as lightly as he would hand you a cigar.

He never asked for anything himself, never envied anyone and, because he wanted nothing from the world, it became his friend and lavished wealth and honor on him.

Bell's saga had been different. His rise in the publishing world had been in the teeth of opposition. Had the opposition been of his own creation? Had he assumed, in this highly competitive business, that everyone so engaged was his rival—indeed, his enemy? And had he thus made fresh enemies for himself?

Bell realised now that something like that lay at the root of his own indifferent progress. That he was symptomatic of the current world outlook. That he was a fool among approximately 2,000,000,000 other fools. Suddenly he was blazing mad at himself.

He carried this fury out of the elevator with him, past the ebony plate announcing in gilt, MICHAEL GRAHAME: CONSULTING PSYCHIATRIST, and into Grahame's living room. The tenant was reclining in a saddlebag armchair, slipped feet on a footstool, gazing lazily up at the smoke rising from his cigar.

"Mick," said Bell, furiously, "sometime we're going to have one of our long cozy talks about life and how it should be lived. And I'll be going for your throat because you, knowing better, have allowed me to act like a fool for so long."

"But not tonight. I'm not staying a minute longer than I can help. Now, why in hades have you dragged me over here on a night like this when you know very well—"

"There's a glass of rum and hot water on the sideboard for you," said Grahame, calmly. "Thought you'd need it."

"Thanks," said Bell and went for it.

"Blast!" he said, "I'm leaving wet footprints all over your Kairwan carpet."

"Hang your clothes in the airing chamber. There are slippers here and a dressing gown warming on the radiator."

"I'm not staying. I've got to—"

"Get out of those wet things, of course," took up Grahame. "Or you certainly won't be staying—in this world for long. Bess will have to spare you for half an hour, while your things dry, or she might have to spare you forever."

"Oh, all right," said Bell ungraciously.

As he changed he said, "What's it all about anyway?"

Grahame looked at him. Both men were in their forties. Bell was thin, taut and anxious-looking. Grahame was large, corpulent, relaxed and radiated serenity.

"About my last book," said Grahame.

"What about it? It's still selling. I'm reprinting it next month."

"I mean my latest book," said Grahame. "That."

He indicated a Florentine leather folder on the table enclosing a thick wad of typescript. Bell went over to it in his drawers.

"You never told me about this. When did you start it?"

"Fifteen years ago," said Grahame.

Bell raised his eyebrows and the cover of the folder simultaneously. The first page said:

THE WHOLE MAN

Book I: Involuntary Hypnosis: Change of Emphasis.

Book II: The Power Complex and Resolution.

Book III: Free will and Determinism: a Synthesis.

Book IV: Full Integration.

He flipped the pages over. It was very technical. Up till now all Grahame's books had been the wide-selling popular sort—*Master That Inferiority!*, *More Abundant Living*, *The Dynamo in Yourself*. And so on. Bell donned the dressing gown thoughtfully.

"It'll take a lot of paper, printing and binding," he said, slowly. "Trade conditions are still none too easy."

"You think it won't sell."

"It won't sell anything like your usual stuff," said Bell. "It'll be expensive to produce and I'll have plenty left on my hands. I'd do it out of my regard for you only—well, frankly, Mick, I don't think the firm's finances will stand it."

"We've been shaky for a long time. Your popular psychology stuff has been our mainstay for years. Every other risk I've taken has fallen flat. I'm a rotten business man."

"Actually," said Grahame, "you're a pretty good business man. Only you're in the wrong business. Publishing isn't your racket. You've no sense of what the public wants."

"Maybe."

"I'm catching the one a.m. train to Chicago—lecture tour," said Grahame. "I'll be away for a long time. I asked you to come here tonight to hammer a few things into your head. First, *The Whole Man* will be a best seller. You'll make a pile out of it. And I'll make my name out of it."

"You've already made your name."

"Purely marginal fame. *The Whole Man* will make world history. It'll have ten times the influence of *Das Kapital*. Second, there's no time to lose about it. I want you to take it back with you tonight and lay it on the line right away. If it's going to shake the world out of its war hypnosis it'll have to start doing it pretty darn quick before the radioactive clouds start rolling."

Bell gave a short harsh bark of laughter which expressed the cynicism of the age. To Grahame, keen prober of mental states, it said a lot.

"So you've written mankind off, Stan?" he said benignly.

"Naturally. It's incurable. We're one of Nature's mistakes. We were designed wrong at the start."

"Yet there's a lot worthwhile in homo saps," said Grahame. "It really would be one of Nature's mistakes to scrap him now. I don't think she will."

"Where's your evidence for this optimism?" grunted Bell.

Grahame waved his hand in a circular movement to indicate the adorned walls of the room. The gesture embraced the originals and reproductions of a Delacroix, a Van Eyck, two Corots, Van Gogh's *Champ d'Oliviers*, Greuze's *Milkmaid*.

It included the loaded bookshelves and the cream of the world's poetry and Tolstoy, Flaubert, Balzac, Dickens, Shaw, Wells. In its orbit came the Ming vase, the Rodin statuette and the view of the Golden Gate bridge.

THERE was no note of query in Grahame's voice. He said it flatly as though he knew exactly what was in Bell's mind.

"That," he said. "And much, much more. Where's your evidence for your pessimism?"

"That," said Bell, and stabbed a finger at the Sunday newspaper draped over the arm of Grahame's chair.

The paper was dated 1st February 1948. The headlines and sub-headings sprang out at one—THE COLD WAR. . . BREAK-DOWN OF TALKS. . . WILL CONSCRIPTION COME AGAIN? . . SCIENTIST SAYS. . . MOLOTOV SAYS. . . BRITAIN SAYS. . . TRUMAN SAYS. . .

Grahame picked it up and turned to an inner page. "Here's an item of interest, Stan," he said and began to read: "Moscow, Saturday. The size—"

"I'm not interested in what Moscow says," interrupted Bell, petulantly. "I'm not interested in what anyone says. It's what they do that matters. Everyone's gabbing about peace and preparing for war. They make me sick."

"They won't face the fact that the causes of war lie neither in economics nor in political history but in psychology," murmured Grahame. "However, for once, this isn't about war. Here, read the thing yourself."

He tossed the paper to Bell. The publisher read it with a frown.

MARTIANS CAME IN 1908

—says Soviet writer

Moscow, Saturday: The size of a hole in the crust of the earth made by a heavenly body on June 30th, 1908, has convinced the Soviet writer, A. Kazantsev, that Martians arrived on earth that day in an uranium-propelled space-ship.

Whatever hit the earth that day at Tungus, Siberia, left no fragments of itself behind, Kazantsev stated at the Moscow Planetarium today.

He said it could only have been a Martian ship laden with enough uranium to carry it back to the planet.

Certain it is, he said, that no meteorite could have done the damage the Tungus missile did, blasting an area greater than all the Moscow region and sending seismic shocks twice around the world.

I believe the Martians left the planet in 1907 and arrived in June 1908 but their ship exploded, he said.

"So what? asked Bell.

"Have you never wondered why Mars has never sent us visitors as far as is known? It's an older planet than Earth and therefore presumably with a more advanced civilisation, technically and morally. Don't you think they should have sent us explorers, missionaries, ambassadors or colonists long before this? In fact, long before Nineteen

Hundred and Eight?"

"I haven't given it a thought. Maybe the Martians haven't either. Maybe there aren't any Martians."

"Maybe," said Grahame. "But there's definitely carbon dioxide in the atmosphere of Mars and the new infra-red spectrometer shows that the polar caps are certainly solidified water. The temperatures are extreme by Earthly standards but far from making life impossible—even Earthly life. The vegetation—

HE WENT on about the flora and topography of Mars and was giving the facts of the canal controversy when Bell interrupted impatiently.

"Look, Mick, at another time I'd be glad to sit at your feet and hear all about it. I mean that. But I'm not going to sit here taking lessons in astronomy when I may be needed at home. You wanted to give me the new book. Right, I'll take it with me and see if I can get it out when I've counted the petty cash. If that's all, I'll be going."

"Wait," said Grahame and produced his check-book. He wrote out a check and thrust it on Bell. It was for a sum that made Bell blink.

"Finance the book with that," said Grahame. "Get a large edition out quickly. That'll settle your doubts about losing out on it."

"But—" began Bell.

"You can return it out of the profits when they come in," said Grahame, quickly, anticipating the objection.

"Well—thanks."

"Your clothes will take at least another ten minutes. Perhaps you can spare me that to air a little fancy of mine?"

"Go ahead, Mick. But don't let it run away with you—about Mars, is it? You think we were visited by Martians in Nineteen Hundred and Eight?"

"Perhaps we were. Suppose we were. Suppose they had another try and pulled it off. Suppose they landed tomorrow. What kind of a reception do you think they'd get?"

"Depends what kind of a mood they were in and what they looked like," said Bell. "If they were mean, like Wells' things, and started flashing heat-rays around, I guess they'd soon be nothing but another uranium-made hole in the ground. Unless they had bigger and better bombs than us."

"If they were inoffensive but still looked like Wells' things they'd probably end up in a zoo. If they were halfway human I suppose

they'd be fêted and asked to say a few words over the radio. But I doubt whether they'd be allowed to colonize."

"That's it, Stan. You reflect the current outlook exactly. You see it in terms of power. Two different races and one's got to get on top of the other. That's the mental sickness my book analyses. The power complex."

"That's not new."

"No. Far from new. It goes back to the old tribal fear of the stranger. The intolerance of the *difference*. Everyone wants everyone else to accept *their* creed, to be like themselves, thus harmless to them. This craving for security, for protection against the different, won't give tolerance and common sense a chance.

"It's the philosophy of dialectic materialism and people are acting on it more and more, whether they're Marxists or hate Karl's insides or have simply never heard of him. But all this and much more is in my book."

"O.K., I'll read it religiously and let you know my views," said Bell. "But I don't want to get into a discussion now."

"All right. I just want to make my point. That is, if the Martians came and stayed for any length of time, there would inevitably arise a state of tension and probably conflict between them and man. Because—and especially if the Martians were a superior race—this increasing fear of the different would pump suspicion into a frenzy in men's minds."

"Surely, if the Martians were more civilised than we, they'd first send missionaries to educate us out of our lowly state," said Bell. "After all we sent missionaries to Africa and the South Seas to help the natives out."

"And fine juicy steaks the missionaries made until the white man turned up in force, complete with guns, to show said natives who was really top dog."

"Can you imagine proud, intolerant man, lord of this planet, content to play second fiddle to a crowd of intruding Martians and permitting himself to be bossed around by them? No. He'd soon turn them into juicy steaks. Unless they also had a power complex and slapped his ears down first."

"I see. You think that's the reason why the Martians have never visited us?"

"No. I think they have visited us."

"You mean they tried to in Nineteen hundred and Eight?"

"Doggone, no," said Grahame, stubbing out his cigar. "That was a meteorite and nothing

else, despite 'Soviet Science.' I mean long before that."

"Pre-history?"

"No. In recorded history."

"But they're *not* recorded!" said Bell.

"They are. I believe they landed here unseen, went around observing us unseen and left missionaries to educate us unseen."

"Why unseen? How unseen?"

"Why? Because they didn't want to become steaks. How? How do bird and animal watchers observe unseen? They try to make themselves look like part of the landscape. Which is only a substitute for making themselves look like part of the life they're observing."

"Some of the top deerstalkers actually get themselves up like deer. Those who first studied the Arabs dressed as Arabs, moved among Arabs and passed for Arabs—even in the sacred enclosure of the Kaaba, where non-Mahomedans were forbidden on pain of death."

"You mean," said Bell, slowly, "you think Martians have been moving among us, disguised in some crazy way as human beings? Observing us—and educating us?"

"Yes," said Grahame. "Who are the teachers of mankind?"

"I—er—" hesitated Bell and veered off anxiously, "You haven't put this nutty idea in the book, have you?"

"No. I said this was a fancy of mine."

"Good!" said Bell, with relief. "Well, I guess you could say the teachers of mankind are the originals, our really great poets, artists, composers, engineers, scientific men and so forth. The creators of all this."

AND he imitated Grahame's circular gesture at the books and *objets d'art* in the room.

"Exactly. They're the missionaries from Mars. They set the standard. And the rest of mankind tries to reach it when they can turn their thoughts now and again from war-making."

"There must have been droves of missionaries coming and going through the ages, then," said Bell.

"Perhaps not so many as you may think. I visualize these people changing their roles, their bodies, sometimes even their subjects over the years to avoid monotony. Being born again—reincarnated. Though perhaps the changeover is gradual. I mean, as life fades out of one body through senile decay, it flourishes gradually in the new body in the form of the child."

Bell regarded the speaker doubtfully. "Think my clothes are dry now," he said and went and got them. He started dressing himself.

"'Intimations of Immortality,'" murmured Grahame lazily as if meditating aloud. "Wordsworth died in Eighteen Hundred and Fifty. Robert Louis Stevenson was born in Eighteen Hundred and Fifty."

"What of it?"

"Byron died in Eighteen Hundred and Twenty-four. He was a restless sort. Supposing he wanted to be one of the great physicists for a change? Lord Kelvin was born in Eighteen Hundred and Twenty-four."

"Shelley died in Eighteen Hundred and Twenty-Two. Pasteur was born in Eighteen Hundred and Twenty-Two. Titian died in Fifteen Hundred and Seventy-six and Robert Burton, of the famous *Anatomy of Melancholy*, was born in Fifteen Hundred and Seventy-six. In Eighteen Hundred and Nine Haydn, the father of the symphony died—and Abe Lincoln was born. In Eighteen Hundred and Twenty-eight Schubert died, Tolstoy was born."

Bell fought with his twisted suspenders and said nothing.

"The Martian who played Voltaire from Sixteen Hundred and Ninety-four to Seventeen Hundred and Seventy-eight and Sir Humphry Davy, who gave the miners the safety lamp, for one thing, from Seventeen Hundred and Seventy-eight to Eighteen Hundred and Twenty-nine, and Rubinstein from Eighteen Hundred to Eighteen Hundred and Ninety-four, must have had some fun," mused Grahame.

"And where did he go in Eighteen Hundred and Ninety-four?" asked Bell, gruffly.

Grahame smiled. "Maybe he went back to Mars on furlough."

"In an organised party perhaps?" Bell tried to make it sound like levity but underneath was uneasiness about the way Grahame was talking. Grahame had always been common sense personified. But this fantastic stuff. . . If it was meant as a joke it wasn't particularly funny.

And if Grahame were half serious it made one wonder whether the psychiatrist wouldn't soon need a psychiatrist—and whether *The Whole Man* were really valuable literary property or only something of like quality.

"I doubt whether there were enough of them to make up parties," said Grahame, still smiling. "But there might have been pals who went in pairs. For instance, two

great composers, like Liszt and Berlioz, who both died in Eighteen Hundred and Sixty-nine. Or two great writers, like Mark Twain and Tolstoy, who both died in Nineteen Hundred and Ten.

"And the two men who knew more about the soul of humanity than all the others, Cervantes and Shakespeare, both died on the same day—April twenty-third, Sixteen Hundred and Sixteen. On the other hand Wordsworth and Beethoven were born in the same year, Seventeen Hundred and Seventy."

"I never could remember dates," said Bell, tying his shoelaces.

"I'm not very good at them myself—these are only odd ones that occur to me," said Grahame, carelessly. "But there's one series I know quite well. I'll write it down for you."

"Oh, don't trouble," said Bell, now fully dressed and brushing his coat. But Grahame scribbled a list on the back of an old envelope and held it out to him. Bell took it.

"That—" began Grahame and was interrupted by the telephone. At the sudden loud tinnabulation Bell's stomach seemed to contract to a little lump of pain.

"That may be for me," he said, and licked dry lips.

"It is," said Grahame, who had answered it, holding it out to him. Bell found he was reaching for it with the hand that still clutched the list. He thrust the list impatiently in his pocket and took the 'phone.

"Hello."

BESS said, "It's started. Sooner than we expected. Don't worry. It'll be some time yet. I'm all packed. The taxi you come back in can take us to the hospital."

"Right. I'm leaving straight away. Make yourself comfortable, pet. Won't be long. 'By."

He dialed the number of a cab rank. When the cab was ordered he gulped the neat scotch the understanding Grahame had placed silently at his elbow.

"Thanks. It would happen the one evening I left her. I could murder you, Mick! However, I've no time now."

He snatched his hat.

"Take the book," said Grahame, quickly. "Please!"

There was a note in his voice which made Bell, for all his haste, pause to look at him. Grahame was on his feet, a massive figure, standing plumb in the center of his beautiful room, and his attitude was tense entreaty. Never before had Bell seen Grahame show

evidence of wanting anything, a favor least of all. Somehow, it moved him.

"Sure, sure," he muttered. "Can't stop to wrap it, though. Can I borrow the folder?"

"You can keep it," said Grahame.

Bell thrust folder and manuscript under his arm.

Grahame relaxed. He even smiled.

"Don't worry about Bess," he said. "It'll turn out all right. I'd come with you but I'm booked for that train."

"That's all right," said Bell and they shook hands. "Hope the tour's a hit. When you're back I'll be seeing you."

"Yes," said Grahame and there passed in his eyes an amused twinkle which Bell was to remember.

* * * * *

The rain had stopped.

As the taxi bore him down the avenue, Bell glanced back through the little rear window at the apartment house. Lighted windows staggered up its tall dark sides to the penthouse, shaped against the night sky. There was a break in the clouds above it, a handful of dim stars just visible.

It was a glimpse into the infinite that one rarely obtained in New York.

And somehow, suddenly, Grahame's fancy about the missionaries from out there seemed—possible. When one was moving, trembling, towards the eternal mystery of the birth of a new part of one's own self—especially if it was your first child and you were the apprehensive sort and you were mad about your wife—then, in that borderland of uncertainty and the unprecedented, almost anything seemed possible.

HE CAME back to the flat as the shadows were long in the early morning light.

He had a shave and a lonely breakfast. It didn't seem right without Bess at the other side of the little table.

But he was immensely relieved. Things had gone swell. Bess was fine—and he was a father—of a son. Pride glowed steadily within him as though he were due the credit for arranging everything.

On another morning the mail's reminder of his precarious business would have worried him.

Now it didn't seem to matter. He even took up the newspaper and glanced over the headlines with a light heart.

Two minutes later he saw an item which

knocked all the cheerfulness out of him, which impelled him to push his plate away to rest his head in his hands, all of his appetite gone.

At a quarter after midnight last night, the cab taking the well-known psychiatrist and author, Michael Grahame, to Grand Central Station had crashed into a street car. Grahame had been killed outright.

And Bell, in his empty flat, felt great gulfs of loneliness opening up all around him. The rock of Grahame was gone overnight. And Bess was not here to comfort him. Not that he thought it wise to tell her about Grahame yet.

She was still weak. And she had liked Grahame.

But she had nothing like his own love and hero worship for the man. He recalled his brusque impatience with Mick a few hours back, and wished that he'd been more gracious.

He felt a mixture of grief and self-pity. The glory of his fatherhood was somewhat dimmed.

At midday he went to see her again, bearing orchids he couldn't afford.

His son was asleep in the little cot at her bedside.

Bess said, "Well, there he is. Half a day old already it's just twelve hours since he arrived."

Bell glanced at his watch—12:15.

"That's right," he said. "I ought to know. Shall I ever forget!"

They laughed. But his laughter died before hers because he remembered something: Mick was killed at the same time that their son was born.

Exactly!

Bess sensed his sudden change of mood.

"What's the matter, love?"

He didn't answer. He was fumbling in his pocket.

He drew out the crumpled old envelope Mick had given him and, for the first time, read what his friend had written.

Then he dropped the envelope on the bed and got up to stare unseeing out of the window.

Mick had been forty-four—born in 1904.

Then, as he gazed at the noonday, his doubts and uncertainties fell away from him. He knew a confidence that he had never known before.

The Whole Man would be all Mick said it would be.

It would make Bell's fortune and lift Grahame's name into the ranks of the great.

And there was every chance that it would do what it was primarily designed to do—set mankind's feet firmly on the true path of deliverance.

Best of all, to him, Mick was with him, would always be with him.

Bess looked at him puzzledly, then picked up the envelope.

Her expression of perplexity only deepened as she read.

Michelangelo —(1474
(1564

Galileo —(1564
(1642

Newton —(1642
(1727

Gainsborough —(1727
(1788

Schopenhauer—(1788
(1860

Chekov —(1860
(1904

"What's it mean, darling?"

He came back, took the envelope, folded it carefully into his wallet.

"Just some notes Mick gave me."

"Oh," she said, "that reminds me. Has it struck you—the boy looks rather like Mick? Don't you think there's something of Mick in him?"

He turned bright eyes on the little red, wrinkled face in the cot.

"Yes," he said, quietly, "I'm sure there's quite a lot of Mick in him."



WONDER ODDITIES

WINNERS of a recent quiz program, threatened with a prize of a flight over the North Pole may be comforted to hear of a new "sky compass", developed by the National Bureau of Standards, which functions in regions where polar magnetism makes ordinary direction-finders useless. The new compass works upon a principle similar to that used in polaroid sunglasses.

OFFSPRING of parents suffering from atomic and X-ray radiations are unlikely to show any signs of hereditary mutations, according to Dr. Robley D. Evans of M.I.T. However, there is no guarantee that such harmful changes may not appear in generations to come, as it takes many generations in direct line before such effects can manifest themselves.

NEW "weatherdromes" or seadromes have been proposed by the U.S. Coast Guard to be used instead of vessels in Atlantic and other waters. They will not be used for landing fields but will rest upon five pylons reaching 175 feet into the water, thus ensuring a steady platform. Each will be manned by 80 men and will do the work of three ships with crews totalling 120 men.

DEATH RAYS reported in various stages of development are not causing much alarm among American military scientists at present. The only one developed here during World War II succeeded in cooking one canary at a distance of nine feet. It is generally felt that the A-bomb is a much more efficient weapon of mass destruction and will be for some time to come.

ENEMY hordes invading California are currently receiving the latest full treatment in biological warfare techniques. In this case the enemy is the alfalfa caterpillar, which is threatening West Coast farmland. The treatment currently in use against this destroyer is the virus of a wilt disease which apparently affects no other insect or animal, including man.

RED, or rather infra-red "black light" has been used in recent experiments by Dr. Elizabeth Sidney Semmens of London to break down starch grains via a special polarized reflection method so that they are converted into sugar. Source of Dr. Semmens' rays is an electric heating coil and the reflector is either black glass or a ferrotype plate.



The geoduck shimmered for a moment in expanding opalescent colors—and then disappeared!

The Neo-Geoduck

by MARGARET ST. CLAIR

*When the chronostellt made a
fabulous mollusk vanish, Oona
was in an embarrassing spot!*

NETTA DUBONET had the pleasantest manner in the world when she was doing anyone a favor.

"You're entirely welcome to it, Oona," Netta said earnestly. "I don't know anybody I'd rather trust with the geoduck than you. I'm sure you'll take good care of it."

Oona Ritterbush nodded. She was too moved to be able to speak. What a friend Netta was, the best in the system! As soon as she'd heard Oona was having the girl Jick

used to be engaged to for dinner, Netta had offered her her set of palladium hollow-ware and her hand-plated mixtl-ixtl fiber place mats, and she'd insisted, absolutely insisted, that Oona borrow her geoduck. A genuine geoduck! Lindorna Belle's eyes would bug out like the eyestalks on a vraiblue Aphrodition lobster when she saw it. Oona didn't think there was another one of them in town.

"I'll be careful with it," she answered solemnly. "I really will. Do I feed it or anything?"

"No, just put it in the sun for an hour or so every day. That's all it needs. There's no hurry about bringing it back—Henry and I are going to Wrangel Island for the sports carnival next week, and I shan't be needing the geoduck until the week after that, for

the Flower Display. I'm going to use the geoduck in an arrangement I'm entering.

"I'm going to fill the bottom of the container with blue bryophytes, put the geoduck on top of them, and then arrange purple and magenta veldt orchids around and inside it so that the colors of the mantle show. I think I'll have a mass of blue ones at the right, and at the left, lower and heavier for occult balance, the magenta and purple ones. When the geoduck begins shining its orange light up through, the effect ought to be wonderful, and I'll be very much surprised if I don't get a prize. Joyzelle Cabot-Cabot may have two robot gardeners and all the money in the system, but you and I both know, Oona, that she hasn't a gram, not a single gram, of taste.

"But as I was saying, Oona, there's no hurry about the geoduck. Take your time with it."

After Netta had gone, Oona walked around the geoduck admiring it. The colors in the mantle were really lovely. Not that Oona was so crazy about geoducks herself—that musical sound they were supposed to emit sounded more like a stereo turned way down than anything else Oona could think of, and the sodium vapor light they gave out was just a yellow light, though it did look pretty when it first came on, all pink and glowing, before it turned to orange.

THE main thing with geoducks was the idea. They didn't really *do* much except lie in the bottoms of their vivariums, and they looked like colored clams with holes in them. But they were such an old life form, and they came from so far away, from Eschaton, which was just barely in the solar system, that there was quite a fad for them. She'd put this one in the center of the dining table instead of flowers, and when Lindorna Belle mentioned it, she'd be as casual about it as anything.

Now that that was settled, the big question was, who should she have as a dinner partner for Lindorna Belle? The only unmarried man Oona could think of was Leslie Hasentine, and of course he was awfully nice, but he was one of Jick's friends. He was a lab assistant for one of the big research outfits, and he talked so much you didn't see when he found time to breathe.

The last time Oona had entertained him, he had argued all the guests into inhaling small quantities of a new anesthetic gas his research team was developing. There hadn't been any bad after-effects, but nobody had

come to until nearly twenty-four hours later, and Oona had missed her favorite stereo program. Still, he wasn't married, and it was reasonable to think Lindorna Belle would be interested in him. Most girls, at her age, had been married at least *once*.

The dinner for Lindorna Belle, three days later, started off well. Lindorna didn't say much when she saw the geoduck, but her jaw dropped down in a way that was really better than if she'd tried to say more.

Everything Oona had cooked turned out fine, and Jick looked absolutely zestful in his new dark crimson dinner tunic with the pale gold piping on the sleeves. Oona herself was wearing a frock with the new covered-up look—it had sleeves and everything—made of opaline spun glass. It was a lot smarter and more attractive than Lindorna Belle's frontless dress of off-green cosiray. Frontless styles were on the way out.

The only trouble with the party was that Lindorna Belle and Leslie didn't hit it off together at all. They kept trying to talk both at once, Lindorna about her work as regisseur of the stereo program, "Girl of Three Worlds," and Leslie about some experiments in temporal spatial relationships his lab was working on. Every time this happened, they'd turn and glare at each other and raise their voices even higher. They sounded like a cage full of zygodactyls. It was quite uncomfortable.

They were just finishing dessert (bombe mercurienne in glacé chocolate patty shells) when Leslie cleared his throat vigorously and reached under his chair for his attaché case.

"You'll be interested in this, Mrs. Ritterbrush," he said. He did not look toward Lindorna Belle, who kept right on talking to Jick. "It's a little device we've just developed which embodies the principles of chronostasis we were discussing. What do you think of it?" He handed Oona a flat brown box. It was about the size of the new rhynoorg-skin maquillage cases she had seen in the window at Firth's on Friday.

"What does it do?" Oona asked, turning it over and looking at it. She hadn't quite followed Leslie's explanation, she was afraid. She'd got rather lost after the first ten minutes or so.

"Well, there's some difference of opinion about that. I contend that all it does is to leave the constituent parts of whatever it affects in a state of dilated latency, so to speak, from which they slowly cohere. Jaymes' idea is that it actually sends objects

into the future—time-traveling, to borrow a popular phrase. I retort that, if that is the case, we ought to be able to send objects into the past, too, by reversing the stasis. But we have not been able to do that.

"Actually, the difference is mainly a philosophical one. The chronostatic action is easy enough to demonstrate."

LESLIE took the gadget back from Oona and looked about the dining table speculatively.

"I'm sure you'd like me to show you," he said, "wouldn't you? You're an intellective, perspicacious exemplification of modern womanhood."

"Uh—well—I guess so."

"If I were to turn the chronostellit on one of those theo cups," Leslie went on, taking Oona's hesitation for assent, "it would go into a state of dilated latency in the time stream at once. The action disappears in three or four days.

"You'll be needing the theo cups. Let's see, we'd better demonstrate the temporal-spatial effect of the chronostellit on something you haven't any use for." Leslie aimed the flat brown box at the softly-humming geoduck.

"No!" Oona cried, realizing suddenly what he was talking about.

It was too late. Leslie had already pressed the switch. The geoduck shimmered for a moment in an expanding aura of opalescent colors and then disappeared.

"It ought to be back about Thursday," Leslie said.

Oona stared at him. A flush was rising in her cheeks. Darn him, if anything had happened to that geoduck! She didn't care if he was a guest, he had no business going around turning his silly little boxes on other people's centerpieces.

"You're sure it'll be back?" she asked.

"Oh, certainly. Not later than Friday at the most. Probably before that. It won't be hurt at all, Mrs. Ritterbush. We've tried it several times on laboratory animals."

Oona nodded, but she was not convinced. A chill had come over the party. Later, after Lindorna Belle and Leslie had left, she confided her worry to her husband. "Will it really come back, Jick?" she asked. "I don't see how it could."

"Oh, sure. Don't worry about it, honey. Of course Leslie shouldn't have tried the chronostellit on your geoduck without being positive you wanted him to, and he talks too much, but he really knows his stuff. If he

says it'll be back unhurt, it will."

Oona sighed. "I just don't know what I'd do," she said plaintively, "if anything happened to that geoduck."

Oona passed the days before Thursday in a state of growing unease. Netta Dubonet would be home next week, and Oona had to have the geoduck for her. She tried not to worry about it, but she couldn't help it. After lunch on Thursday she decided to cook a marinated bollo tongue on the barbolize for dinner. It was a complicated, elaborate business, and it would occupy her enough to keep her from running into the dining apse every other minute to see whether the geoduck had come back yet.

The day was windy and cold. Leaves and bits of debris kept scudding past the kitchen windows as Oona worked. She hated wind, it was always so depressing.

"Nasty weather out, kid," Jick said when he came home. He gave Oona another warm hug. "I don't know why they don't put a shelter dome over this part of town, too. Gosh knows our taxes are high enough here. Say! You know who I saw on the street today?"

"No, who?" Oona asked. The bollo tongue must be nearly done. Maybe she ought to go out in the kitchen and look at it. But she hated to interrupt Jick while he was teling her something.

"Leslie and Lindorna Belle. They were riding along the sidewalk holding hands and both talking at once."

"Huh? Leslie and Lindorna Belle?" Oona felt incredulous.

"Yep, that's what I said when I saw them myself. Couldn't believe my eyes. They were cuddling up to each other like a couple of lonesome quohaugs. Lindorna Belle didn't turn a hair when she saw me, but poor old Les blushed all over his face."

JICK winked at Oona and grinned at her before going on with his story.

"I got him off by himself and asked him when the wedding was going to be, and then he did blush," he said. "He got so red he looked just like a panful of that Rosellebud Parfait you used to make. It seems he hasn't given her an engagement bracelet yet because she didn't like the design of those in the jeweler's, but he's having one made to order, and they're definitely engaged.

"They plan a quiet wedding next month. He wanted to go to Marsport and the canal district for their honeymoon, but she says the planets are so obvious nowadays that it's

much smarter to nupt on Terra. She knows of the most charming little hostelry on the Great Barrier Reef that's still quite simple and unspoiled. Only a few people have discovered it.

"He told me all about their plans. Trouble with that guy is, he talks too much. I wonder what their married life'll be like, with both of them talking all the time. Anyhow, we'd better be looking for a wedding gift for them, baby."

Oona sank down on the pneumoport, the fork she had been turning the bollo tongue with still in her hand. Surprise at what Jick had told her had made her feel weak and wobbly in the knees. Leslie and Lindorna Belle! Why, she'd thought they'd snap each other's heads off at her dinner party. She simply couldn't believe it.

Of course, in a way it really wasn't so surprising after all. Sometimes people hated each other because they were attracted in spite of themselves. Leslie was quite nice, really, and so was Lindorna Belle, even though she had been engaged to Jick. Oona would have to get them something pretty zesty for a wedding gift; Lindorna was used to nice things.

"What's that smell?" Jick asked suddenly. He threw back his head and sniffed. "Something on fire?"

Oh, heavens, the marinated bollo tongue! Oona raced to the kitchen. As she opened the door, she was greeted by a lowering cloud of dense black oily smoke. Through the murk she could see thin red flames.

Coughing, Oona tore a handful of fire bombs from the rack beside the door and began tossing them at the blaze. The first bomb missed the bollo tongue completely, and smoke kept on pouring forth, but the next was a hit and so was the next. The thin plastic shells of the bombs ruptured, CO₂ flowed out, and the fire began to abate. Jick grabbed some bombs and began throwing too. In less than three minutes the fire was out.

The fire was out, but the dinner was ruined and the house was full of smoke. In the gloom behind her, Oona could hear Jick coughing and falling over furniture.

"I'm going to open all the windows," he announced. "Got to get rid of this smoke."

There were a couple more thumps. "Blast these hummocks!" Jick said bitterly. Then he got the window irises open, and the smoke grew less dense. A cold wind began to circle through the living room.

Warning pricked abruptly at the back of

Oona's mind. What was it? Wasn't there something, some reason, why Jick oughtn't to open windows in—in—in—

In the dining apse! The geoduck! It didn't weigh much, and if the wind—

Oona got to the dining apse just in time to see the geoduck materializing (or, as Hasentine would have said, emerging from its state of dilated latency) in a halo of opalescent colors. Even as she watched, the wind caught the still partially dilated object. It whirled around the room twice, gleaming brightly and seeming to expand, its musical hum rising to a thin whine. Then it went out the window.

Jick and Oona spent the next hour and three quarters picking up pieces of the geoduck from grass, trees and bushes in the recreation area outside the house.

When they had finished, they had a heap of fragments which could have been contained in a dish twelve centimeters across. None of the pieces was over three cms. wide, and a lot of them Oona wasn't sure were pieces of the geoduck at all. She had picked them up only because she couldn't think what else they could be.

FOR a moment Jick looked at the pathetic pile. Then he nodded soberly.

"It's clear enough what happened," he said. "The wind caught the geoduck just as it was condensing into time again. Individual pieces cohered, but the structure of the geoduck was distorted by the force applied at a moment when it was still partially latent. It broke up into bits. There are atoms of geoduck all over town by now, I imagine."

Atoms of geoduck!

"You mean it's gone?" Oona asked desperately. "You mean we can't get Netta's geoduck back?"

"I'm afraid we can't," Jick answered. He was frowning and rubbing his head.

Oona stared at him. The catastrophe was too great for recrimination. And anyhow, if it had been Jick's fault for opening the window irises and letting the wind blow the geoduck out, it was her fault the bollo tongue had caught fire and filled the house with smoke. When you came right down to it, it was Leslie Hasentine's fault for turning that nasty chronostell of his on the poor geoduck in the first place. Why had she ever invited him? A man who talked all the time and made you sniff gas out of a little siphon after dinner—why, there must have been something wrong with her head!

"I'm going to call up Leslie," Jick said suddenly, "and ask him if there's any chance the chronostell could go back in time and pick up the geoduck before it comes into the time stream again." He went to the video and called a number.

There was a long, long conversation while Jick shifted his weight from foot to foot and Oona looked wearily at Leslie's image in the little viewing plate.

"He says that in the last few days they have been able to pick up objects from the past under certain conditions," Jick reported when he came back. "It's much more difficult than just sending them forward in time, as the chronostell does. It takes a terrific amount of power and a complicated installation.

"The trouble with it, according to what he says, is that the minute you start intervening in the past, you change it, and so whatever you bring out of the past is changed, too. For instance, they managed to pick up one of the laboratory white rats from January, last year, and it was a sort of sickly pink, with no tail, when they brought it into the present.

"Leslie asked me if the geoduck had come back yet, and I told him it had. After all, it wasn't his fault I opened the window irises."

"Everybody's fault and nobody's fault. 'We've got to get another geoduck for Netta,'" Oona said after a moment.

Jick nodded. He went back to the video, leafed through the directory, and called the Tri-Planet Importing Company. When he came back his face was serious.

"Honey, did you know those damned geoducks were under the protection of the Alien Biota Act? The number of them that can be mined in any one year is strictly limited. The quota for this year was exhausted two months ago, and there won't be any more geoducks on the market until next May."

"You mean we can't buy one?" Oona asked incredulously.

"So the Tri-Planet man said."

"Call up some more places," Oona suggested after a pause. "Maybe there're still some in the stores that haven't been sold."

For nearly two hours Jick was continuously at the video. He called emporia from Tashkent to Little America, asking for geoducks. He even sent a 'gram to a Gift Shoppe and Stereo Librarie on the dark side of Luna. Everywhere the answer was the same. No geoducks. No geoducks until May.

Oona listened to Jick's end of the various video conversations with watering eyes. She sniffled occasionally. Not that she was going to cry, or anything like that—it was just that there must still be some smoke in the air.

JICK hung up the video mouthpiece at last and turned to her. "Don't cry, sweetheart," he said anxiously. "We'll call Leslie and have him yank the geoduck out of time before Netta gets back. You mustn't worry. It'll be all right."

Oona blotted at her eyes. "Oh, I'm not worrying," she answered, striving for cheerfulness. "Like you say, we can call Leslie and have him get it back."

Leslie, to do him justice, was repentant and enormously cooperative when he learned the true state of affairs. He showed up at the house early next morning with two trucks full of machinery, a worried expression, and the Chief Electrician from the laboratory to supervise the installation.

Dr. Jaymes, looking smug and pleased (after all, it wasn't his geoduck that had got lost, and he had been shown to be correct in thinking that the chronostell did actually make objects move in time) came over to watch the experiments and brought several other D.Sc.s with him. By late afternoon, when they were ready to start, the house was as crowded as an air bus at seventeen-seventeen.

Leslie pressed a switch. The biggest machine, the one they had set up in the living room, began to hum ominously. Other parts of the installation, some smaller, some larger, raised their individual voices. The house was vibrating steadily.

"I trust you understand the theory behind movement in time, Mrs. Ritterbush," Leslie said, raising his voice in order to be heard. "The concept of time as a dimension, the fourth dimension in addition to the three spatial ones in which our movement is comparatively free, is, of course, quite old. A material object, in order to exist, must, it is obvious, have existence in the temporal dimension as well as the spatial ones. When we consider—"

Oona looked at him distractedly. There he was, still talking, the way he had the night he lost the geoduck. You'd think it would have been a lesson to him, but no—his swagger kept on going like it was hinged at both ends.

As far as that went, what did he mean about time being a dimension, anyhow?

Oona couldn't understand it. So far as she was concerned, you might just as well talk about moving around in gravitation, or in mass. There was no sense to it.

"When we consider," Leslie went on, raising his voice yet more, "how old such concepts are, the wonder is that until the very recent present so little progress has been made on applying them. It—"

There was a soft plop. The long-lost geoduck had just emerged from an orifice in one of the smaller machines and fallen on the eutex.

Oona raced to pick it up. It was humming softly and emitting the orange-colored light. It seemed to be unhurt. Maybe things were going to be all right after all!

A second later her heart had sagged down to her sabots. The geoduck, though it still hummed and emitted its characteristic light, had lost the essence of its geoduckicity. The hole in the middle was gone.

"H'um," said Dr. Jaymes, taking the geoduck from Oona and looking at it with interest. "It's lost the characteristic torus shape. We'll have to go back in time after it once more, Hasentine."

Leslie nodded. He pressed the switch again. Again the machines began to hum. . . .

By twenty-two, there were geoducks all over the room. Some of them had holes, some didn't, but all were deficient in one or more respects. One, at least, was a mere shapeless blob with a shell around. A whole room full of lame geoducks! Whatever was Oona going to do?

LESLIE sighed deeply. He looked horribly depressed, and Oona, though the whole thing was his fault, felt sorry for him. After all, he meant well.

"Tell you what you might do, Hasentine," Dr. Jaymes suggested, eying the collection. "Send the whole—ah—menagerie back into the past and then go back and pick out one of them. The past into which you send them, of course, will be quite different from the primary past in which the original geoduck was destroyed. When you go back after one of them, that subsidiary past will be altered, too, and there's a chance that you'll get a geoduck which is a sort of average of all of these. It's worth trying, anyhow."

Leslie nodded. He and Jaymes began picking up geoducks off the floor and putting them into the orifice on the sender. When they were done, Hasentine moved a lever and the geoducks faded out of sight.

"Now for the big moment," Leslie said. He was a little pale. He waited while Jaymes fiddled with a slide rule and read answers from it. He made adjustments on a dial to correspond. Once again he pressed a switch. There was a perceptible interval during which Oona listened to the beating of her heart, and then the ultimate geoduck appeared.

It was quite a pretty thing, really. The torus shape had turned into a sort of flanged cup with glowing blue and magenta lines around the edges, and the body of the geoduck was covered with irregular patches of silver mixed in with turquoise and chrysocolla blue. The light it gave out was a clear soft gold. Really very pretty. The only trouble was, it didn't look like a geoduck any more.

"I'm terribly sorry, Mrs. Ritterbush," Leslie said helplessly. "I guess we should have kept the one with the crimps in the edges. There didn't seem to be anything else wrong with it except that."

"Can't we go back in time after it?" Oona asked. She felt all funny and numb.

"Afraid not," Jaymes answered pleasantly. He motioned to the Chief Electrician, who motioned to his crew. They began unscrewing bolts and carrying out machines. "We don't know much about the mathematics of movement in time yet, but we can be sure of one thing: the more we intervene in time, the more deformed the objects we bring out of it are. It's too bad, Mrs. Ritterbush." He began giving low-toned orders to the foreman.

"I can't tell you how sorry I am, Mrs. Ritterbush," Hasentine said. He looked as if he were going to cry.

For a moment Oona almost hated him. Darn him, wasn't it enough for him to lose her geoduck for her without expecting her to console him for having done it? She had all she could do to keep from bursting into tears herself. Then politeness came to her aid.

"It's all right," she said through stiff lips, "p-p-p-perfectly all right."

Oona slept badly for the next few nights. Twice she was awakened by Jick's stroking her forehead gently. She had, he said, been moaning in her sleep and saying something about geoducks. On the whole, it was a relief to her when, two days before the Flower Display, Netta Dubonet chimed at the front door.

Netta was wearing her new black plastic skirt with the mica lace ruching at the hem,

and a terrifically sheer white nimbus blouse. She was looking very well. She told Oona about the fun she and Henry had had at Wrangel—they'd relished every minute of it—and observed that Oona herself seemed rather worn-out and tired. Then she asked for her geoduck.

Wordlessly Oona went to the closet, got out the vivarium with the neo-geoduck in it, and handed it to her:

"What a sense of humor you have, Oona." Netta said. She smiled appreciatively. "It's quite pretty, too, in its way. Some sort of exotic, extra-terrestrial mollusk, I suppose. Now let's have my geoduck, dear."

"That is your geoduck."

NETTA'S eyebrows went up. "My geoduck? What in the system are you talking about?" Her voice had gone up too, Oona perceived.

Hopelessly, without trying to palliate her part in what had happened, Oona recounted the history of the original geoduck. By the time she had finished Netta's eyes were flashing in a way that made Oona remember that Netta had told her once—in strict confidence—that thought her hair was mauve with metallic highlights this year, its natural color was red.

"Do you mean to tell me, Oona, that you didn't take any better care of my geoduck than to let some idiot of a scientist go experimenting with it? How could you be so—so—Oona, I'm surprised at you!"

"I—well—I'm awfully sorry, Netta. I'll get you another just as soon as I can." Oona swallowed miserably. This was hurting even more than she had thought it would.

"And when will that be, may I ask?" Netta said.

"In—uh—in next May."

"In May? Why, my arrangement's due at the Salla Floreal at seven-twenty, day after tomorrow morning!"

"I know."

"Well, if you know so much, I don't see why you didn't take better care of my geoduck." Netta paused. It was plain that she was trying hard to keep her temper under control; equally plain that she was losing the battle.

"I've got to submit some kind of arrangement," she said bitterly, "because I'll lose my exhibitor's deposit if I don't, and besides Joyzelle would never stop laughing at me. And thanks to you, Oona, I've got to exhibit an arrangement with this—this *thing*. Eternal cosmic force! It's more than I can stand.

Let me out of here before I get really good and mad!"

Netta's bosom was heaving like the heroine's in the second act of the old Greek play Oona had scanned on the stereo last week, the part where she stands over her husband with the ax. Netta snatched up the geoduck, threw open the door, and ran out. Oona could hear her swearing as she tore off down the walk. . . .

Later Jick was trying to console Oona. You've got to stop crying, sweetheart," he said firmly. "I know how you feel, but gosh, you've hardly stopped for two days now. After all, angel girl, it wasn't your fault."

Oona sniffled. Jick's lapels were all wet from her tears; his tunic would have to go to the resurfacers.

"I know," she answered, "but you see, I like Netta a lot. That's why I—" The video buzzed.

Jick went to answer it. "It's Netta," he said when he came back. "She wants to view you."

Rather apprehensively, Oona went over to the instrument. As Netta's face appeared in the viewing plate, Oona perceived at once that some strong emotion was moving her. The question was, what was it?

Netta's first words dispelled her doubt. "The most wonderful thing has happened, Oona," she said. "I owe you a myriad apologies."

"Oh, that's all right. What—"

"Dozens of geoducks, absolutely dozens of them were entered, and of course, Oona, I shouldn't have had a chance, if it hadn't been for that absolutely inspired mistake of yours. As it is, seventy-five I.U.'s isn't to be sneezed at, is it, even in these days, and of course all the prestige. I'm having my picture in the afternoon stereopress and maybe in the morning, too. I just can't thank you enough."

"Oh, let it lapse. But Netta, what happened?"

"Why, I've been telling you! My arrangement took first prize at the display, and I got a special commendation for using rare organic materials."

"You mean the neo-geoduck?"

"Um-huh! The judge was *crazy* about it. Practically everybody there had old-fashioned geoducks in their arrangements. Joyzelle had four—and I guess he was sick of the sight of them. Anyhow, I got first prize, and she didn't even get a third. Isn't it wonderful?"

It was several seconds before Oona could speak.

"It—it certainly is," she said slowly.

"I want you to take half the prize, Oona. I insist on it. There's no use in your arguing. You might just as well say yes now as a lot later."

Oona hesitated. She was having a little trouble in taking in just what had happened. "Well, okay," she said at last. "I know what I'll use the money for."

"What?" Netta asked, leaning forward interestedly.

"Well, you know Leslie—the one that had that, er, trouble with the geoduck—and Lindorna Belle are going to be married. If I can get it, I'm going to buy them a set of Basslynx wood tableware for a gift."

"Basslynx wood? I don't think I've ever heard of it."

"There was an educational stereo 'cast about it recently. It seems it grows on Venus and looks just like Aphroditon mahogany when it's worked, but there's some kind of chemical in it that paralyzes your vocal chords temporarily if you eat from dishes or tableware made out of it."

"The 'caster said that on Venus it's considered a strong but tactful hint to give anybody tableware made out of Basslynx wood. Of course, Leslie's talking so much turned out for the best and all that, but I can't help thinking, Netta, that Basslynx wood tableware would really be an awfully appropriate wedding gift."

"I don't blame you a bit," Netta said.



The Predictions of Steinmetz

By SIMPSON M. RITTER

AT THE turn of this century Charles Proteus Steinmetz, 1865-1923, made certain predictions about electricity and the future of the United States which were almost true in their entirety by the time of his death and which since then have far surpassed his estimations.

Steinmetz' first prediction was that electricity would some day be so reasonable that even the poorest working people in the country would regard it as a commonplace of their life and that electric companies would be able to afford to install and read meters in individual homes.

His second prediction was that through proper harnessing of electrical power to industry a six-hour working day would be all that was needed to keep all of American industry functioning.

That stage, according to economists, has been reached or would be here if full advantage was taken of electricity. According to the economists if industry used all available sources of electrical power and all available electricity, a five-hour day would suffice right now.

Steinmetz' third prediction was that by 1950 we would have so much leisure as a result of electrical power that most folks wouldn't know what to do with themselves and we would be hard put to find new forms of entertainment.

This situation has already begun to loom as a possible threat in the near future but is being staved off in part by an increase in publication of reading matter not foreseen in Steinmetz' time, by the advent and geometrical growth of motion pictures, television and other forms of entertainment, and by greatly increased public participation in such sports as golf, bowling, tennis, and so forth.

Earthmen Face a Strange Situation on Mars!



The Naming of Names

THE ROCKET metal cooled in the meadow winds. Its lid gave a bulging *pop*. From its clock interior stepped a man, a woman, and three children. The other passengers whispered away across the Martian meadow, leaving the man a frightened sentinel over his family.

The man felt his hair flutter and the tissues of his body drawn tight as if he were standing at the center of a sucking vacuum.

His wife's body, before him, seemed almost to whirl away, like a smoke drift. The children, small seeds, might at any instant be sown to all the Martian climes.

The children looked up at him, as people look to the sun, to tell what time of their life it is. His face was like cold milk.

"What's wrong?" asked his wife.

"Let's get back on the rocket."

"Go back to Earth?"

By **RAY BRADBURY**

"Yes!"

"Are you afraid of something?"

"Listen!"

The wind blew as if to flake away their identities. At any moment the Martian air might draw his soul from him, as marrow comes from a white bone. He felt submerged in a chemical that could dissolve his intellect and eradicate his past.

They looked at Martian hills that time had worn with a crushing pressure of years. They saw the old cities, lost like thin children in their meadows, lying like children's delicate bones among the blowing lakes of grass.

"Chin up, Harry," said his wife. "It's too late. We've come at least thirty-five million miles or more."

The children with their dandelion hair hollered at the deep drone of Martian sky. There was no answer but the racing hiss of wind through the stiff grass.

He picked up the luggage in his cold hands. "Here we go," he said—like a man standing on the edge of a deadly sea, ready to walk in and be drowned.

They marched into town.

THEIR NAME was Bittering. Harry and his wife Cora, and the swarm: Tom, David and Laura. They built a little white cottage and ate good breakfasts there, but the fear was never vanquished. It lay with Mr. Bittering and Mrs. Bittering nights, a third unbidden partner at every midnight talk, at every dawn awakening.

"I feel like a salt crystal," he often said. "In a mountain stream, being washed away. We don't belong here. We're Earth people. This is Mars. It was meant for Martians." To his wife, he pleaded, "For Heaven's sake, Cora, let's buy tickets for home!"

But she only shook her head, and said gravely, "One day the atom bomb will fix Earth. Then we'll be safe here."

"Safe and insane!"

Tick-tock, seven o'clock sang the voice-clock; *Time to get up.* And they did.

Something made him check everything each morning—warm hearth, potted blood-geraniums—precisely as if he expected something to be amiss. The morning paper was toast-warm from the six A.M. Earth rocket. He broke its seal and tilted it at his breakfast place. He forced himself to be convivial.

"Colonial days all over again," he declared. "Why, by gosh, in another year there'll be a million Earthmen on Mars, I

bet! Big cities, everything! They said we'd fail. Said the Martians would resent our invasion. But did we find any Martians? Not a living soul! Oh, we found their empty cities, but no one in them. Right?"

A river of wind submerged the house. When the windows ceased rattling, Mr. Bittering swallowed and looked at the children.

"I wouldn't be too sure," said Little David. "Maybe there're Martians around we don't see. Sometimes nights I think I hear 'em. I hear the wind and the sand hit my window and I get scared. And I see those towns way up in the mountains where the Martians lived a long time ago. And I think I see things moving in those towns, Papa. And I think: I wonder if those Martians *mind* us coming here to live. I wonder if they won't *do* something to us for coming here."

"Nonsense!" Mr. Bittering looked out the windows. "We're clean, decent people." He looked at his children. "Dead cities all have kind of ghosts in them. Memories, I mean." He stared at the hills. "You see a staircase and you wonder what Martians looked like climbing it. You see Martian paintings and wonder what the painter was like. You make a little ghost in your mind, a memory. It's quite natural. Imagination." He stopped and gave his son a cold glance. "You haven't been prowling up in those ruins, have you?"

"No, Papa." David looked at his shoes.

"See that you stay away from them. Pass the jam."

"Just the same," said little David, "I bet something happens."

Something happened that afternoon.

Laura stumbled through the settlement, crying. She dashed blindly onto the porch.

"Mother, Father—the war, Earth!" she sobbed. "A radio flash just came. Atom bombs hit New York! All the space rockets blown up! No more rockets to Mars, ever!"

"Oh, Harry!" The mother fastened to her husband and daughter.

"Are you sure, Laura?" asked the father quietly, trembling.

Laura wept. "We're stranded on Mars, forever and ever!"

For a long time there was only the sound of the wind in the late afternoon.

"Alone," thought Bittering. "Only a thousand of us here. No way back. No way. No way." Fear-sweat poured from his face and his hands and his body, he was drenched in the hotness of the fear. He wanted to strike Laura, cry, "No, you lie! There is a

way back! The rocket's will return!" Instead, he stroked Laura's blond head under him and said, "Rockets will get through, some day. They *must*!"

"Five years maybe," sobbed Laura. "It takes that long to build one. Father, Father, what will we do!"

"Go about our business, of course. Raise crops and children. Wait. Keep things going until the war ends and the rockets come again."

The two boys stepped out on the porch. "Children," he said, sitting there, his eyes holding a wild look, "I've something to tell you."

"We know," they said.

BITTERING wandered numbly into the garden to stand alone in his fear. As long as the rockets had spun a red web across space, he had been able to accept Mars. For he always told himself, "Tomorrow, if I want, I can buy a ticket, go back to Earth." That had given him the security necessary to put up with Mars.

But now! The web gone, the rockets lying in jigsaw heaps of molten girder and un-snaked wire. Earth people left to the strange mercies of Mars, the cinnamon dusts and wine airs, to be baked like gingerbread shapes in Martian summers, put into harvested storage by Martian winters. What would happen to him, the others? This was the moment Mars had waited for. Now it would eat them!

He bent into the soil to try to forget, a spade in his nervous hands. Work, work and forget, he thought dully.

He glanced up from his task to the Martian mountains. He thought of the proud old Martian names that had once been on those peaks. Earthmen, dropping from the sky, had gazed on hills, rivers, Martian seas left nameless in spite of names. Once Martians had built cities, named cities; climbed mountains, named mountains; sailed seas, named seas.

Mountains melted, seas drained, cities tumbled. In spite of this, Earthmen had felt a guilt at applying new names to these ancient hills and valleys. Nevertheless, man lives by symbol and label. The names were given.

Mr. Bittering felt very alone in his garden under the Martian sun, an anachronism bent here, planting Earth flowers in a wild soil.

Think. Theorize. Keep thinking. Different things. Take your mind off of Earth,

the atom war, the lost rockets.

He sweated. He glanced about. No one watching. He removed his tie. Pretty bold, he thought. First your coat off, now your tie. He hung it neatly on a peach tree he had imported as a sapling from Massachusetts.

He returned to his philosophy of names and mountains. The Earthmen had changed names. Now there were Hormel Valleys, Roosevelt Seas, Ford Hills, Vanderbilt Plateaus, Rockefeller Rivers on Mars. It wasn't right. The American settlers had shown wisdom, using old Indian prairie names: Wisconsin, Minnesota, Idaho, Ohio, Utah, Milwaukee, Waukegan, Osseo. The old names the old meanings.

Staring at the mountains wildly he thought, "Are you up there? All the dead ones, you Martians? Well, here we are, alone, cut off! Come down, wipe us out! We're helpless!"

The wind blew down a shower of open peach blossoms.

He put out his sun-browned hand, gave a small cry. He touched the blossoms, picked them up. He turned them over. He touched them again and again. Then, turning, he shouted for his wife.

"Cora, Cora, come here!"

She appeared at a window. He ran to her.

"Look, Cora, at these blossoms! Do you see?"

She handled them.

"Do you see?" he cried. "They're different, they've changed! They're not peach blossoms any more!"

"Look all right to me," she said.

"They're not. They're *wrong*! I can't tell how. An extra petal, a leaf, something, the color, the smell!"

The children ran out in time to see their father staggering about the garden, pulling up radishes, onions, carrots from their beds.

"Cora, come look!"

They handled the onions, the radishes, the carrots between them.

"Do these look like carrots?" he challenged.

"Yes . . . No," she hesitated. "I don't know."

"They're changed."

"Yes. Perhaps."

"You *know* they have! Onions but not onions, carrots but not carrots. Taste—the same but different. Smell—not like it used to be." He felt his heart beating frantically and he was afraid. He plunged his fingers into the earth. "Cora, what's happening?"

"We've got to get away!" He began to run across the garden. Each tree felt his touch. "The roses! They're turning green! Green roses!"

"Come see the cow, come see the cow!" chanted small Tom. "I been milking her every day this week, and just yesterday I noticed. Come on!"

They stood in the shed and looked at their cow.

It was growing a third horn.

And the lawn in front of their house—It was turning purple. Seed from Earth, but growing purple.

"We've got to get away," said Bittering, beginning to sob. "We'll eat this stuff, and we'll change. Got knows to what. I won't do it! I'll kill myself first! There's only one thing to do: burn this food."

"It's not poisoned," reasoned his wife.

"It is—oh so subtly, yes, subtly. I won't eat it!"

He stared at his house. "Even the house, look at it. The wind's done something to it. The air's burned it. The night mists have warped it. It's not an Earthman's house any more."

"Oh, your imagination!"

He put on his coat and tie. "I'm going into town. We've got to do something now, act now. I'll be back."

"Wait, Harry!" the wife cried.

But he was gone.

IN TOWN, on the shadowy steps of the grocery store, the men sat with their hands on their knees, conversing in an easy leisure.

Mr. Bittering wanted to fire a pistol in the air.

"What are you doing, you fools!" he thought. "Sitting there! You've heard the news, we're stranded on this planet. Well, move! Aren't you frightened, excited? Aren't you afraid? what are you going to do?"

"Hello, Harry," said everyone.

"Look," he said to them. "You *have* heard the news, haven't you?"

They nodded and laughed. "Sure, sure, Harry."

"What are you going to do about it?" he almost screamed.

"Do, Harry, do? What *can* we do?"

"Build a rocket! Build a rocket, that's what!"

"A rocket, Harry? To go back to all that trouble? Oh, Harry!"

"But you *must* want to go back. Have you

noticed the peach blossoms, the onions, the grass?"

"Why, yes, Harry, seems we did," said one of the men.

"Didn't it scare you?"

"Can't recall that it did, much, Harry."

"Idiots!"

"Now, Harry."

Bittering wanted to cry. "You've got to work with me. If we stay here, we'll all be—changed! It's like—like—"

"Osmosis, Harry?"

"Yes! That's the word. The air. Don't you smell it. Something in the air. A Martian virus, perhaps. Some seed. Pollen. Oh, please listen to me! Don't turn away."

They stared at him.

"Sam," he said to one of them.

"Yes, Harry?"

"Will you help me build a rocket, Sam?"

"Harry, I got a whole load of metal and some old blueprints. You want to work in my metal shop, on a rocket, you're welcome. I'll sell you that metal for five hundred dollars. You should be able to construct a right pretty rocket, if you work alone, in about thirty years.

Everyone laughed.

"Don't laugh!" Harry cried.

Sam looked at him with questioning eyes.

"Sam," Bittering said. "Sam, your eyes—"

"What about them, Harry?"

"Didn't—didn't they use to be gray?"

"Well now, I don't remember."

"They were, weren't they?"

"Why you ask, Harry?"

"Because, because now they're *yellow*!"

"Is that so, Harry?" Sam said, casually.

"And you, you're taller and thinner—"

"You might just be right, Harry."

"Sam, you shouldn't have yellow eyes."

"Harry, what color eyes have *you* got?" Sam said.

"My eyes? Why they're blue of course."

"Here you are, Harry." Sam handed him a pocket mirror. "Take a look at yourself."

Mr. Bittering hesitated, and then raised the mirror to his face.

There were little faint flecks of new gold captured in the blue of his eyes.

"Now look what you've done," said Sam. "You broke my mirror."

HARRY BITTERING moved into the metal shop and began to build the rocket. Men stood in the open door and talked and laughed. Once in awhile they gave him a hand on lifting something. But

mostly they just idled and watched him with their yellowing eyes.

"It's supper time, Harry," they said.

His wife appeared with his supper in a wicker basket.

"I won't touch it," he said. "I'll eat only food from our deep-freeze. Food that came from Earth. Nothing from our garden."

"This is insane," said his wife. "You can't build a rocket."

"I worked in a shop once, when I was twenty. I know metal. Once I get it started, the others will help," he said, not looking at her, laying out the blueprints.

"Harry, Harry," she said, helplessly.

"We've got to escape, Cora. We've got to!"

The nights were full of wind that blew down the empty moonlit sea meadows past the little white chess cities lying for their twelve-thousandth year in the shallows. In the Earthman's settlement, the Bittering house shook with a feeling of change.

Lying abed, Mr. Bittering felt his bones shifted, shaped, melted like gold. His wife, lying beside him, was dark from many sunny afternoons. Dark she was, and golden, burnt almost black by the sun, sleeping, and the children metallic in their beds, and the wind roaring forlorn and changing through the odd peach trees, the purple grass, shaking out green rose petals.

The fear would not be stopped. It had his throat and heart. It dripped in a wetness of the arm and the temple and the trembling palm.

A green star rose in the East.

A strange word breathed from Mr. Bittering's mouth.

"*Iorrt. Iorrt.*" He repeated it.

It was a Martian word. He knew no Martian.

In the middle of the night he arose and dialed a phone call through to Simpson, the archaeologist.

"Simpson, what does the Martian word, 'Iorrt' mean?"

"Why, that's their old word for our planet Earth. Why?"

"No special reason."

The telephone slipped from his hand.

"Hello, hello, hello, hello," it kept saying while he sat gazing out at the green star. "Bittering? Harry are you there?"

* * * * *

The days were full of metal sound. He laid the frame of the rocket with the idle help of three indifferent men. He grew sick,

he grew tired in an hour or less, and had to sit down.

"The altitude," laughed a man.

"Are you eating, Harry?" asked another.

"I'm eating," he snapped.

"From your deep-freeze?"

"Yes!"

"You're getting thin, too, Harry."

"I'm not!"

"And taller?"

"Liar!"

HIS wife entered with bad news. "Harry, I've used up all the food in the deep-freeze. There's nothing left. I had to make sandwiches using Mars-grown food."

A look of defeat shown in his eyes.

"You must eat," she said. "You're weak."

"Yes," he said.

He took a sandwich, opened it, looked at it and began to chew upon it.

"And take the rest of the day off," she said. "It's hot. The children want to swim in the canals and hike. We want you along."

"I can't take an hour off. This is a crisis!"

"Just for an hour," she urged. "A swim'll do you good."

He rose, sweating. "All right, all right, leave me alone. I'll come."

"Good for you, Harry. Come on now. Put down that hammer."

The sun was hot, the day quiet. There was only an immense staring burn upon the land. They walked along the canal, the father, the mother, the racing children, in swim suits. They stopped and ate meat sandwiches. He saw their flesh baking brown. And he saw the yellow eyes of his wife and his children, that were never yellow before. A few surges of horror arose in him, but were singed away by the flurried heat waves. He was too tired to hate.

"How long have your eyes been yellow, Cora?" he asked.

"Why?" She was bewildered. "Always, I guess."

"They didn't change from brown in the last three months?"

"Why—" She bit her lips. "No. Why do you ask?"

"Never mind."

They sat there.

"The children's eyes," he said. "They're yellow, too."

"Growing children's eyes change color."

"Maybe we're children, too. At least to Mars. That's a thought." He laughed. "Think I'll swim."

THEY all leaped into the canal water. He sank to the bottom like a golden statue and lay there in green silence. All was water quiet and deep, all was peace. He felt the steady, slow current shift him along.

"If I lay here long enough," he thought, "the water would rub and eat away my flesh until the bones showed like white coral. Just my skeleton left. And then the water would build on that skeleton—green things, marine things, red things, yellow things. Change. Change. Slow, deep, silent change. And isn't that what it is up *there*?"

He saw the sky submerged above him, the sun made Martian by atmosphere and time and space.

"Up there, a big river," he thought, "a Martian river, all of us lying deep in it, in our pebble houses, in our submerged boulder houses, like crayfish hidden, and the water washing away our old bodies and lengthening the bones and—"

He let himself drift up into the light.

Tom was sitting on the edge of the canal, regarding his father seriously.

"*Utha*," he said.

"What?" asked father.

The boy was irritated. "You know, *Utha's* the Martian word for 'father.'"

"Where did you learn it?"

"Dunno. Around. *Utha*?"

"What do you want?"

"*Utha*." The boy looked steadily at him.

"I—I want to change my name."

"Change it?"

"Yes."

His mother swam over, said, "What's wrong with Tom for a name?"

Tom fidgeted. "The other day you called Tom, Tom, Tom. I didn't even hear. Part of me said 'No, that's not your name.' I got a swell new name I want to use."

Mr. Bittering held to the side of the canal, his face cold and his heart pounding slowly.

"What is this new name, Tom?"

"*Linnl*. Isn't that a keen name, Dad—or *Utha*, I mean. Can I use it, please, please, can I, can I, please?"

Mr. Bittering put his hand to his head. He thought of the rocket, himself working alone, himself alone even among his family, so alone.

He heard his wife say: "Why not?"

He heard himself say, "Yes, you can use it."

"Yaaaa!" screamed the boy. "I'm Linnl, Linnl!"

Racing down the meadowlands, he danced and shouted.

Mr. Bittering looked at his wife, "Why did we do that?"

"I don't know," she murmured. "It just seemed like a fair idea."

They walked into the hills. They walked on old mosaic paths, beside still-pumping fountains. The paths were covered with a thin film of cool water all summer long. You kept your bare feet cool all the day, splashing as in a creek, wading.

They reached a small deserted Martian villa with a good view of the valley. It was on top of a hill. Cool marble halls, big murals, a swimming pool. It was cool in this hot summertime. The Martians hadn't believed in large cities.

"How nice it would be," said Mrs. Bittering, "if we could move up here to this villa for the summer."

"Come on," he said, angrily. "We're going back down to town. Work on the rocket!"

But as he worked that night, the thought of the cool villa entered his mind. As the hours passed, the rocket seemed less important. In fact, in the passing days and weeks, the rocket had receded in importance. The old fever was gone. It frightened him to think that he had let it slip this way. But somehow, the heat, the air, the working conditions—

He heard the men talking out on the porch of the metal shop.

"Everyone's going. You heard?"

"All going. That's right."

Bittering came out. "Going where?" He saw a couple of trucks, loaded with children and adults and bits of furniture, drive down the dusty street.

"Up to the villas," said the men.

"Yeah, Harry, I'm going. So is Sam, aren't you, Sam?"

"That's right, Harry. What about you?"

"I've got work to do."

"Work! You can finish that rocket in the autumn, when it's cooler."

He took a breath. "I got the frame all set up."

"In the autumn is better." Their voices were lazy in the heat.

"Got to work," he said.

"Autumn," they reasoned. And they sounded so sensible, so right.

"Autumn would be best," he reasoned. "Plenty of time, then."

"No!" shrieked part of his conscience, deep down inside, put away, locked tight, suffocating. "No! Escape!"

"Yes, in the autumn," he mused.

"Come on, Harry," they all said, under water.

"Yes," he said, feeling his flesh melt away in the hot liquid air. "Yes, in the autumn. I'll begin work again then."

"I got a villa near the Tirrahna Canal," said Sam.

"You mean the Roosevelt Canal, don't you?"

"Tirrahna. The old Martian name."

"But on the map—" began Bittering.

"Forget the map. It's Tirrahna now. My villa near the Pillano Mountains—"

"You mean the Rockefeller Mountains," said Bittering.

"I meant the Pillano Mountains," said Sam.

"Yes," said Bittering, sinking under the hot liquid air. "The Pillano Mountains."

ALL WORKED at loading the truck in the hot still afternoon of the next day.

Laura, Tom and David carried packages. Or, more accurately, Uutil, Linnl and Werre carried packages. All three had changed their names.

The furniture was abandoned in the little white cottage.

"It looked just fine on Beacon Street in Boston," said the mother. "And here in the cottage. But up at the villa? No. We'll get it when we come back here in the autumn."

Bittering himself was quiet.

"I've some ideas for furniture up at the villa," he said, after a time. "Big and lazy furniture."

"What about your Encyclopaedia Britannica?" asked the mother. "You're taking them along, surely?"

Mr. Bittering glanced away. "I'll come get them next week."

"Laura!" called mother. "What about your New York dresses?"

The bewildered girl stared. "Why, I just don't want them any more."

They turned off the gas, the water, they locked the doors and walked away. Father peered into the truck.

"Gosh, we're not taking much," he said. "Considering all we brought to Mars, this is only a handful!"

He started the truck.

Looking at the small white cottage for a long moment, he was filled with a desire to rush to it, touch it, say good-by to it, for he felt as if he were going away on a long journey to somewhere and leaving something to which he could never quite return or understand again.

Just then, Sam and his family drove by in another truck.

"Hi, Bittering! Here we go, up to the villas!"

The trucks swung down the ancient highway out of town. There were sixty others traveling the same direction. The town filled with a silent, heavy dust from their passage. The canal waters lay blue in the sun, and a quiet wind blew over Mars.

"Good-by, town!" said Mr. Bittering.

"Good-by, good-by!" sang the family, waving to it.

They did not look back again.

Summer burned the canals dry. Summer moved like flame upon the meadows. In the empty Earth settlement, the painted houses flaked and peeled. Rubber tires upon which children had swung in back yards hung suspended like stopped clock pendulums, burning on the air.

In the metal shop, the rocket frame began to rust.

In the quiet autumn, when it came time to move back down to town, Mr. Bittering stood, very dark now, very golden-eyed, upon the hill near his villa, looking at the valley.

"It's time to go back," said Cora.

"Yes, but we're not going," he said quietly. "There's nothing there any more."

"Your books," she said. "Your fine clothes."

"Your *billes* and your fine *lorn puele rre*," she said.

"The town's empty. No one's going back," was his answer. "There's no reason to, none at all."

The daughter wove tapestries and the sons played songs on ancient flutes and pipes, their laughter echoing in the marble villa.

Mr. Bittering gazed at the Earth settlement far way in the low valley. "Such odd, such ridiculous houses house those Earth people built," he commented.

"They didn't know any better," his wife mused. "Such ugly people. I'm glad they're gone."

They both looked at each other, startled that they had used the third person, plural, past tense. They laughed.

"Where did they go?" he wondered. He looked at his wife. She was golden and slender as his daughter. She looked at him. And he seemed almost as young as their eldest son.

"I don't know," she said.

"We'll go back to town maybe next year, or the year after, or the year after that," he

said calmly. "Now—I'm warm. Let's swim."

They turned their backs to the valley. Arm in arm, they walked silently into their villa.

FIVE years later, the rocket fell out of the sky. It lay steaming in the valley. Men, Americans, leaped out crying:

"We won the war On Earth! Here we are to rescue you! Hey!"

But the American-built town of cottages, peach trees and theaters was silent. They found a half-done rocket frame, rusting.

The rocket men searched the hills. The rocket captain established headquarters in an abandoned saloon. He was drinking whisky when his lieutenant returned to report:

"The town's empty, but we found native life in the hills, sir. Dark, yellow-eyed people. Martians. Very friendly. We talked a little, not much. They learn English fast. I'm sure our relations will be most friendly with them, sir."

"Dark people, eh?" mused the captain. "How many?"

"Six, eight hundred, I'd say, living in those marble villas in the hills, sir. Tall, healthy as can be. Beautiful women."

"Did they tell you what happened to the original inhabitants of this Earth settlement, lieutenant?"

"They hadn't the foggiest notion of what happened to this town or the people from it."

"Strange." The captain swallowed his drink meditatively. "You think those Martians killed them?"

"They look remarkably peaceful, sir. Probably a plague did this town in."

"Perhaps." The captain poured another drink. "Drink up, Lieutenant. I suppose this is a mystery we'll never solve. One of those mysteries you hear about."

The captain looked at the room, the dusty windows, the blue mountains, the canals, and he heard the soft wind in the air. He shivered. Then, recovering, he tapped a large new map.

"A lot to be done, Lieutenant." His voice droned on as the sun sank among the blue hills. "The old records were lost. We've a job of remapping to do, renaming the mountains, and such. Now, what do you think of calling these mountains the Lincoln Mountains, this canal the Washington Canal, those hills the Harding Hills, this sea the Rockefeller Sea, and we'll make this the Einstein Valley, and over here— Are you listening, Lieutenant?"

The lieutenant snapped his gaze from the distant hills.

"What? Oh, yes, sir!"



A Checkerboard of Airstrips

AERONAUTICAL engineers with an eye on the future see the American landscape shortly flecked by twenty to thirty thousand airstrips to accommodate the estimated three hundred thousand planes, helicopters, and so forth, that may be privately owned by about 1951. These airstrips will be supplemented by the three thousand airports currently in use by our military and commercial air bodies. As the air-going population increases, at about five per cent per year, so will the number of strips and ports.

The airstrips are being planned as level, grassy bits of land between 150 and 200 feet wide and from 1500 to 2000 feet long. Experts say they need not be hard surfaced like our highways to accommodate light craft. In form these strips will emulate the horizontal I, the T, the L, and the X. They are expected to be situated about ten miles apart, the country laid out in a checkerboard design with an airstrip at each ten mile square corner.

It is estimated that the cost will be about \$4500 for each, or \$90,000,000 for the first twenty thousand at current prices. The experts have suggested that profitless land be used for these strips, including, in metropolitan area, cleared slum grounds.

—Mark Knight

THE READER SPEAKS

(Continued from Page 7)

universe in which he lives—and only from such understanding will he ever achieve any lasting adjustment to his environment which will find him free of his stultifying fears.

Then and then only will he have a chance to move directly forward to the millennium. We hope the day is not far distant, for at present too many of us are inclined to allow our fears to grow in direct proportion to the advance of science.

OUR NEXT ISSUE

AN author new to our pages if not to science fiction generally takes over the lead spot in our October issue with an amusing, brilliant and exciting story of a world in which science has gone badly awry, a world which could well be ours in the very near future. His name is Wallace West, his novel **THE LURE OF POLARIS**.

This is the story of a world which has matter transmission but is unable to enjoy interstellar travel because it has been unable to manage itself. The very discoveries which would answer mankind's needs must be abandoned one by one because man is unable to keep at peace with himself or even to supply himself with the ingredients of existence.

Earth, in short, is psycho. Its ablest leaders are in the hands of psychiatrists who themselves are highly suspect where sanity is concerned. And Captain John Harkness, stationed on Polaris Three, finds himself as abandoned as was Britain when the Roman conquerors pulled out in the fifth century.

Returning to Earth, he himself falls into the clutches of the psychos and is put to work on a project doomed to failure which is rapidly exhausting Tellurian resources. He forgets his winged Martian girl and the incredible Pog, a native whose species he is supposed to be studying.

There is, of course, a solution—there has to be. And it is one of the most unexpected and satisfying that we can remember publishing. For those of us who like a story which is "different" even while it does not desert the values we have come to like and anticipate, Mr. West has supplied a gorgeous answer in **THE LURE OF POLARIS**. Anyway, we like it. And we think you'll like it just as much.

Leigh Brackett, who scarcely needs an introduction, teas off with novelet honors and **THE LAKE OF THE GONE FOR-**

EVER, a stirring and romantic story of heredity and the planet of a distant star and a mystery which inescapably draws together a pair of alien lovers who must walk closely with death.

The planet is the world of Iskar, a strange and frigid place with a secret both beautiful and deadly. The traveler is Rand Conway, who enlists with a mineralogical expedition in an effort to discover the secret of his own past.

He does so at last, but not before he has cut himself off from Earthly roots and risked threefold danger—from his colleagues, from the alien natives and from the mystery of Iskar itself. This is Brackett in her finest imaginative vein.

Also featured among the novelets for October is **THE HIBITED MAN** by L. Sprague de Camp. This is the story of Thomas Otterburn, who unwillingly submits to being an experimental guinea pig at the laboratory where he works and discovers that every Casper Milquetoast quality which has kept him from enjoying life has been scientifically banished via science.

Nobody thought Tom Otterburn *could* run wild—this was the main reason behind his election as subject for the experiment—but run wild Tom Otterburn does. This is Sprague de Camp at his hilarious best—which should be enough for any reader who likes a multitude of laughs along with his science fiction.

All of which, of course, is only part of a fat issue. There will be two more novelets, by Henry Kuttner and Cleve Cartmill, plus short stories—a full collection of them—features, including those supplied by Ye Ed, and all the other elements which go to make up an issue of **THRILLING WONDER STORIES**. We hope to find you again with us!

LETTERS FROM OUR READERS

APPARENTLY the recent disappearance of poetry from this pillar of readers was only a temporary loss. The wherefore of the above should shortly become evident to the least metrical-minded of you if you'll read on. Meanwhile, we open with a fine epistle from a well-known stf author.

LONG TIME NO— by Albert de Pina, Ph.d.

Dear Editor: After a year in Mexico and South America, where I went to write and help produce a couple of jungle films, I returned to find that TWS has grown immen-

arably in stature. Were I given to panegyrics, I would write one to your editorial staff for having accepted and published: "A CHILD IS CRYING."

I have read many psychological stories, in various languages, but I fail to recall a single child study superior to the above mentioned one. The insight into the child's character; the superb analysis of his reactions as a mutant being used as a military tool, and the magnificently ironical ending (not to speak of the true appraisal of the characters of the officials), left me with a deep feeling of satisfaction.

I had no idea that TWS had come of age, and that the "adolescent" mental level had been changed to "Superior ADULT." The December issue is a triumph both for you as Editor and for us readers: I hope the present policy is permanent. I haven't written you for years. And haven't written for you since PRIESTESS OF FAKMARI when I was in the hospital for wounds during the war. By golly, the material in the pages of TWS is a challenge—I think I'll write a yarn for you again. I used to write and sell a lot of science-fiction. Member?—1911 Hillcrest Road, Hollywood 28, Calif.

Of course we remember, Dr. de Pina. And if you can contribute anything which will enable us in any part to live up to that "Superior ADULT" status, please spare neither horses nor typewriter.

After all, we must depend to a very great extent upon what our authors furnish us to maintain any sort of high level of stories published—not to mention seeking to keep raising it. We hope you will soon be able to help us.

NOT SO HOT

by Sylvester Brown, Jr.

Dear Editor: I'm tempted to inform you that the word *lame* in that "mystery verse" is *achamenee* for *lima beans*; however, it was in reality a rather poor attempt at rhyming *lines* with *feuds*. . .

The current issue is rather a let-down from the Feb. number. In the realm of fiction, the page cut still rankles, but is considered unavoidable. On the other hand, I hope the return to a poorer grade of pulp paper is only a temporary thorn to be removed next issue. At any rate, I have already voiced my opinions *anent* this, so will let it pass with no further comment.

The story quality also fell off. It's a tough assignment, though, to beat a rather superior V.V. novel. And the WEAPON SHOPS OF ISHER was superior. Ray Bradbury's story though third in the issue and very good was a very great disappointment to me. It could so easily have been a classic, if only Ray had put more thought and effort into it. As it stands, it appears to be a hastily written first draft. What a shame! AND THE MOON BE STILL AS BRIGHT could have been clipped.

The two best stories in the issue were Mrs. St. Clair's beautifully written bit of pathos and Leinster's tangle of plot ideas. The LOST RACE certainly packed a lot of meat into a few pages. Noel Loomis deserves the same criticism as Bradbury to a lesser degree for a story of lesser intrinsic greatness.

ALIEN EARTH and ON THE HOUSE were average for TWS. THE FOX, I am sorry to say, awoke bitter memories of the inexcusably technical "V-E" Smith of your competitor. The other three shorts were all very enjoyable reading. I was pleasantly surprised to see Roy Phillips. He can turn out some very nice stuff at times.

In re: Braverman's letter in TWS. I must avail myself of the opportunity to tell my "neighbor" that it takes a lot longer than a year of "college study of literature" to make one literate or capable of intelligently judging a book's literary worth. I've taken several such courses in college and have yet to feel the burning light of "right belief grounded on immediate knowledge. . ."

I thought Harnes's story above average in worth as literature. That of course is only my opinion. But I believe that my critical ability is at least as good as Braverman's, who penned it. Probably because he just finished a Psych course and felt he knew all the basic "truths" of this "exact" science!

In addition I should like to point out to Mr. Braverman that no professor worth his snit will venture, as positive truths, statements about future probabilities. Therefore I suggest that Mr. Braverman take the professional estimate of six—sixty thousand years for gene effect by atomic radiation with a grain of salt—not as gospel truth. Who knows, there might be mutant Japanese

on earth today! Y's Ed's remarks to the letter were entirely fitting.

In closing let me deplore the paucity of Stevens in the present issue and Bergey's stalker on the cover. What ever happened to the Earl? He turned out a magnificent cover for the Dec. issue. That was a mistake, eh?—#5 Gordon Street, Allston, Mass.

It was not, Sylvester, it was not! Bergey, we suspect, like other men who make their living by daubing paint on canvas or beating out lines from a typewriter on paper, is to some extent affected by the degree to which his assignment stirs his imagination. He does what he is requested to do by the art department—and does it at least as well as could any man now in the field. Otherwise, we're sorry you failed to care for the April issue. We thought it had some nice stuff.

A REAL FAN SPEAKS

by Mina McMahon

Dear Editor: May a Grandma come into the squared-circle of fandom and say "How-dee!" Yes sir-ree, feel right at home here! Cut my molars on the Granddaddy of fantasy mag—*the old Argosy*—long before he got kitchened and took up with *Alt-Story*. One thing I know for sure is once you fall into the trap of such tales, you are caught for ever. It's your first love—and your last.

My how the verbal fists fly when a story is not the ultimate or the reader is not in the receptive mood! Me? If I don't like them, I simply turn the page, just as I walk out of a theater if I am bored. I very seldom turn pages however, in your publication. I like it too much to get offended or offensive if I pull a sour prune out of the pudding, instead of the plum of delight I hoped for.

If the complaining ones of today had to search through many issues for one fantasy tale, as we used to do, they would be less critical. Perhaps our nostalgia for the "good-old-stories" is explainable by the same scarcity. Like the cool drink to the thirsty traveler, they were gems to be read and reread—and remembered.

If they hold for us all the breathtaking thrill of you younger readers' memory of the first roller-coaster ride, there's your reason right there! Taint necessarily so they climb a pole and let the parade pass them by?

I will line up with the "Ayes" for reprints and wish most heartily there were more fantasy fiction printed by pocket-size publishers. Movie and radio have seen the light. What's the matter with those publishers that they climb a pole and let the parade pass them by?

And to go back to oldies, who remembers an *Argosy* tale of a world in a drop of water and the beautiful heroine in miniature the scientist fell in love with? Along about the time of Pellucidar. (Bet a line chip I misspelled that one!) Can't recall either title or author of this story but it must have made a lasting impression due to my susceptible years and the love element, no doubt.

My main reason for barging in here, (Oh yes, I still move with the speed one could call *barging*) is to put out a couple of feelers. Wish you reader-letter writers would speak up on a couple of issues.

The first is the so called Oregon Vortex here close to my present home. Have any of you visited it, or read much about it? I would like to read comments from the minds of the extra-normals. Naturally, that's what we stat fans are!

I see first of all normal or we could not have the fixation of purpose or the strength of our convictions, to follow along these paths of fantastic conception. That we are extra-normal is proven by our ability to seize upon the perception beyond the normal acceptance. We have extra absorption beyond the norm—so we are extra-normal. Just like that!

I see my ability to soar above mundane facts as a gift which lifts me above—not sets me aside. That uplity feeling lets me meet contempt and disdain from the poor normal without erasing and apologizing. Who was ever ashamed by overdeveloped eyesight, hearing or sense of touch? Why then, if they are a gift, isn't this super-sense more than a gift and therefore to be met with pride? (What's wrong with THAT, Mr. Editor?)

Now to get back onto the track. Does it mean I've been sucker-punched by a BEM, if I see this Vortex as an

exceedingly demanding and expounding demonstration, that falls right on our way of thought, both literally and geographically? So many of the phenomenal characteristics found here speak of extra-dimensional space.

Are we given to see and feel and study first hand something we have long accepted in theory—and then found lacking in interest? The Oregon Vortex and the newly located accompanying four new fields of counterforce in the neighboring Siskiyona, is the No. 1 topic I would like to have discussed. What's all the hush-hush about it?

The second subject lies a little deeper in the base of possibility for it depends on the first-hand information of but a few. Several years ago, the Sunday supplements carried a double-page spread of "Unexplainable Mysteries." The above Vortex was one and for the week to follow, they wrote of a strange race of giants who lived in uncharted wastelands of Washington, between the Canadian border and Mt. Baker area.

It was told that hunters and soundoughs on three different occasions, came out of that territory to tell hysterical babbling tales about these wild men. They looked and lived as the cave-men of old did, walked practically on all fours and were seen each time by someone who had been lost for quite a time. Do any of the readers know anything about this legend?

Although I lived in the Northern part of Washington when this article was covered, I could find no old settler who had ever heard a rumor about this antedated race. I next tried the oldest Indians, in a reservation on Puget Sound. They left me certain they knew something—but chattered among themselves and then said, "No." Has any reader knowledge of this tribe of half-men half-beasts?

Now for my last request. My, but ain't I the wantin' woman! Have a book I would enjoy using, could I complete it. It is a copy of the original translation from the German print of Napoleon's Book of Mystery. Fly page reads he consulted it constantly—carries many of his questions, the answers he received and followed to prove this Oracle's worth. It is without the so-called key which one is referred to often.

Does any one know whether one would be available—and if so, where? Found this book in an old attic. It is in good condition but shows no place where sheets have been torn out. Deduce this key to the answers was in the form of a supplement. Will appreciate anything anyone can tell me about this book.

How about some of your article writers giving us the lowdown on my two thought husters—the Vortex and the Ape Men of the Cascades. Or better yet, how about a tale laid around either one? Is it only coincidence that two attacks have been made on occupants of the same berth in the same train and both during the month of January—right in the heart of the area where these foreign force fields are?

Who or what came out of where to brutally attack two sleeping women—to leave one with her throat slashed and the other hysterical, as the night express sped through the land, where every accepted law of our world meets undefinable defiance? She's all yours.—Box 101, Gardiner, Oregon.

You've caught us with our proverbial pants down, Mrs. McMahon. We inquired just now of a member of this magazine group who has hunted the Northwest extensively and he knows neither the Vortex nor the Ape Men.

His only suggestion, in fact, was that during the war, Oregon instituted a special tax which, in time, as such things will, became known as the Oregon War Tax. We hope he was kidding.

Seriously, readers—help! What in or out of hades is the Oregon Vortex? Do you know anything about Mt. Baker Ape Men or the key to the Napoleonic Dream Book? Give Mrs. McMahon and our poor selves a hand here. We're stumped.

A SMALL FAVOR by Fred G. Michel

Dear Editor: I have just finished reading the April TWS and liked it fine. I am not asking any favor for myself nor shall I make any comment upon the stories,

all of which were good. I know that I cannot do half as well as I am no writer. A writer is usually born and not made.

I am going to ask you, or rather your readers, for a favor for a friend of mine. He would like to have old magazines, which I, being in hospital, cannot furnish him. So I am asking the readers to give him a lift. His name is Tom Sutton, his address 11 Dugdale Street, Birmingham 18, England. The people over in Europe were very good to me while I was over there and I have never forgotten their kindness.—Veterans Hospital, Ward No. 4, Palo Alto, California.

Okay, gang, here's a chance to help him get even. All right?

HERE'S A DILLY by Perdita Lilly

Dear Editor: Lately out—here comes a new addition to your fans and have I got things to say! Guess I'll start with all the things I like. First, I think your stories are swell. S'funny, but I don't know what I ever did with all the time I now spend reading science fiction (to my mom's disgust).

I read all the mags my purse can afford and some that it can't and I think TWS and SS are the best. Secondly, I ain't would cry out, "Oh, that Virgil!" His drawings are wonderful!!! I like his stuff so much that I could write a long eulogy on the subject upon request (no, no—not that, Perdita—Ed.).

To get down to cases, I have just finished reading the April issue (down to the Reader Speaks, which prints letters about the December issue which came out in October). The lead story "THE ULTIMATE PLANET" was good but I still can't quite figure the reason for Finlay's lead illustration. ALIEN EARTH by Hamilton was fascinating.

Referring back to my magazine, I find that QUITE LOGICAL comes next on the agenda and, thinking it over, I think I'm going to start giggling again. The next story worthy of mention is ON THE HOUSE. Orig Prem is quite a character (and, oh—that illustration!).

Don't get me wrong—I'm a fan of Bradbury like most everybody else, but why didn't you take all the pages that THE CONCRETE MIXER was printed on and bury them? The next story, THE LOST RACE, we shall just politely skip. Comes now the last story, THE BOX. When I read this one it rang a little bell in my little old head and I did some delving to come up with this—In 1936 your mag published a story called THE LANSON SCREEN, which was reprinted in Groff Conklin's *The Best of Science Fiction*, where I read it. It seems to me that THE BOX is remarkably similar. The best part of it was Finlay's illustration.

My main gripe with TWS and SS is Bergey's covers. From reading the letters of other fans I gather that I am not alone in my distaste for them either. I'm going to close with a request for pen pals. I'm 17 years old and an art student at the Cass Technical High School in Detroit.—1416 Monte Vista, Detroit 4, Michigan.

We noticed the same similarity between Jim Blish's story and Arthur Leo Zagat's "The Lanson Screen"—however we thought the more modern version offered a new and fresh solution. Surely you wouldn't put John Dickson Carr out of business just because Conan Doyle, Wilkie Collins and numerous others had already tackled the sealed-room detective story. Or would you?

A FEW OFF-BEATS by Franklin M. Deitz (Jr.)

Dear Editor:

Once a month, near the fore
The pencils wag and typers roar
A mag from Standard comes around
For fans to drag up or down.

This one, for April, so newly born
Shouldn't, I think, get much room
With pages graced by Bog himself
The mag is showing signs of health.

Tremaine's article is next in line
I think that series is mighty fine
Then your ravings, dear ed, they woe
The next place possible in this run.

Stories by Loomis and Hamilton bow
Ah, reading them was such joy
And art by Finlay, it was supreme
But Napoli, wgh, it ruins my dream.

The Frying Pan I decidedly don't like
Appears to be written by some tyke
But The Reader's Squeaks made it up
Thus I stop 'fore you say "Shaddap!"

—P. O. Box 286, Kings Park, Long Island, New York.

We thought at first before we'd read
This screed we'd seek a rhyme for "Junior."
But when we'd seen how us you plastered
We said, "Why Deitz is just a rascal."
So, even though he spared his scorn
We'll throw him just a can of asparagus.

THERE'S NO SUCH THING AS A LITTLE RIME! by Wilkie Connor

Dear Editor: Comes now the first of February and with it the April issue of TWS. Good reading this trip. Though Bradbury isn't as effective in the longer lengths as he is in the shorter, and St. Clair isn't as good at serious stuff as she is in her humor, both authors turned out good stories. The best yarn in the whole book, though, was Raymond K. Gallun's OPERATION PUMICE. I got a heck of a bang out of that little yarn! Fred Brown's sixty little number was nice, too!

Those people who got so riled over Hubbard's moon yarns should have their heads examined. If the few eyewitness accounts of life behind Russia's iron-curtain are true, anyone who would defend Russia or the Russian way of life, should be sent there to live. I recently read of a former labor agitator (name on request by any interested party) who, after being implicated in Red activities here in Gastonia, skipped bond and went to Russia to live.

He had been sentenced to prison for his alleged part in the killing of a chief of police during one of the labor riots. He spent a few years in Russia, then came back to North Carolina to carry out his sentence. He was quoted as saying, "I'd rather be a prisoner in the USA than a free man in Russia!" Which, to my mind, is proof enough that Russia is far from being a heaven!

I would not like to see THE READER SPEAKS become a battleground for the expounding of political theories. Everyone has a right to his or her particular brand of politics. But a magazine should have a right to run any FICTION story deemed good entertainment without a bunch of feeble-minded jerks getting hot under the collar when such a FICTION story goes against their politics!

Stories of the future should deal with actualities of the now that might become more possible in the future. And if Ron Hubbard or Ray Bradbury sincerely believe that any country constitutes a threat to future peace of the world, I believe they should mention that country by name.

It serves to give the story a verisimilitude that often makes a mediocre tale into a good yarn. Often have I read stories dealing with these United States as being bad boys in the future; . . . and never did I see anyone raise a howl about that!

In my spare time,
I wrote a little . . .
But I lost it.
Now I bet no rhyme . . .
And no spare time . . .
But I ain't no poet
And don't you know yet

—1818 McFarland Avenue, Gastonia, North Carolina.

In our spare time
It's all the same
We lost it too.
Ain't it a crime?
We've got no dime
It's got us frothing.
'Cause WE don't know from nothing!

For all of which we have no intention of turning either THE READER SPEAKS or its companion department in STARLING STORIES, THE ETHER VIBRATES, into a cozy if slightly incendiary meeting place for political ideologies. Too much politics—which deal basically only with the cheapest and crassest things of life—are guaranteed to destroy not only decency but glamour. And glamour—be it of the unknown or otherwise—is the essence of science fiction. So don't get your drawers in an uproar, Wilkie, and thanks for writing again.

FURTHER CORRUPTION by Frank Smith

Dear Editor: I think that the fans who objected to 240,000 Miles Straight Up were right in doing so (the dream conclusion is no excuse). The daily papers, radio, etc., excrete war propaganda from every pore. Let's keep science fiction free from that stuff.

You had a good point too, when you wondered how long Karl Marx would last in Russia. In view of the Stalinist corruption of Marxism (namely, the existence of an exploiting bureaucracy in what is supposed to be a socialist economy—a resurrected Marx executed as a "left deviationist") would be a logical development.

Of the stories in the April issue, I liked THE ULTIMATE PLANET best. Especially the impressive descriptions of Stygian climate. Mr. Loomis struck an on-the-spot-report note that made for gripping reading. McAvity's remarks on the possibility of his being "sawed out" seems to provide an excellent theme for a sequel. How about it, Mr. Loomis?

I would appreciate correspondence from science fiction fans. All letters will be answered.—812 Banner Avenue, Brookline 24, New York.

Okay, neatly put, frere Smith. But we hope this ends that particular controversy. We liked the Loomis job for the very same reasons, Frank.

COLLIE, COME HOME by Collie Clements

Hi Ed: Been out of circulation for quite a while. Reading end that is. In fact, never was in circulation on pen angle. Caught up with reading and found time wasting. Figured might as well do some more wasting. So here I am.

Yeah, I know, another Clements. Well, I'm here to defend the honorable(?) name of Clements. Hear that some dames (uh—I speak the word loosely) have been telling off a character, one Jack Clements. Don't know him personally or unpersonally.

In Jan. ish of this yr. one lee randolph (not deserving capitalization) pens a letter. I'll quote part of it. "I cheer and brighten perceptibly when I find Jack Clements has been told off so nicely by all my feminine contemporaries." See the fiendish attitude? She's cheered, happy that Jack was told off. She derives enjoyment out of other's disadvantages. Then, in the next paragraph I quote. "I greatly rejoice to see so many fem-fans out. I can remember the time, not so long ago, when all the top names were men. But, knock wood, our so called week-end sex seem to be getting stronger and stronger. More power to us!" Read the emotional lust for power and strength lying not very subtle before your eyes. Wonder what type of escapists these dames are?

Being a very understanding fellow I have mostly contempt for these fem-fans.

You know, it's a good thing my girl friends don't read this type of literature. They would hate me for what I've wrote. But I believe that this puts one lee randolph back in her place. She and her contemporaries should leave the those of the name of Clements alone.

Now to other things. Have little comment concerning the stories this time. I'm an easygoing guy. I liked all of the stories. Maybe one a little more than another but, suffice to say I enjoyed all of them.

Don't mind untrimmed edges. I'm use to them. Cover by Berger okay with me except on one point. Don't care for the lines in the dress(?) the girl is wearing. Breaks my perspective looking. All inside sketches good. I like the editorials very much. It's good talking. Hard to find that anyone. No use saying keep up the good work. I know you'll do it. If for no other reason than it being your job.

Well, I guess I've writingly talked enough. I'll go back to my position of the audience. It's really enjoyable watching characters.

In parting thought. If Mike Wirodsky arouses my curiosity much more, I'll wind up in Windy to find out for myself about his age.

So long for awhile.—218 North Talbot Street, Indianapolis, Indiana.

We could start a contest right now, trying to have some of you guess this inclemments' age—but we don't know it although he could hazard a pretty safe guess he is not more than sev—no, six years old at most. Anyone else agree with us?

ITEMIC ERA!

by Meyer Weisman

Dear Sir: Re. your comment on my letter April, p. 149, in which you refer to a neat line in a prospective story—"There's no fuel like an oil fuel"—I heartily agree that "oil fuel" is a sleek one for lubricating the risibilities of the pun-addict. I note, however, that you, yourself, exhibit the deftly prodding touch of the true genius in expounding the much-maligned and misunderstood art of phonetic analogies (if a meritorious pun requires, indeed, any dignified characterization for its justification).

I refer particularly to your promise that you would put Ray Cummings to work on my emperor-size atom—"He seems to have a sort of affinity for such items." At first blush I was somewhat perturbed by what appeared to me a deeply misplaced allusion to a subject of such grave import. But not for long. In flash of revelation, my fleetingly erring, but now normally functioning alert senses perceived the adroit master stroke of Ye Editor's facile pen—a "super-atom," stripped of cumbersome compound terminology, would naturally be an "atom" (idem, item).

So eager were we to emit the inchoate ebullitions of self-expression—left inarticulate, fortunately, through the usual channels of literary publication—that we are prone to either laud or execrate what finds favor or not in a publication which lends gracious ear thereto, without the reciprocation of due tribute to the brilliant capability of Ye Editor, whose burden it is to peruse these embryonic and, at best, ingeniously inviolate forays into the noble art of thought communication, and who lends zest and substance to the general effect of Fandom with his sometimes charitably cryptic, and always intelligent and able interpretative comment.

The themes of both my opening and present remarks are coincidentally served by the fortuitous appearance, immediately below Editor's comment above-referred to (on p. 149) of Ye Editor's practically immortal lines, responding to S. S. (Warren, Ohio). With what versatile power are depicted in rhyme the "affixations" in emulation of "S. S.":

"Had we any precognition
"Of this doggerel attraction
"You have put on exhibition,
"We'd have stepped on our ignition."

Does satire often reach greater heights of inclusive, colorful metaphor?

And the heading, "Throw Him (S. S.) To the Lion." I wonder if my predilection to grab at the bait of this "fashion" was born of my birthdate (in March) 1.

And, mayhap, even Ye Editor was not aware of the character of chain-reaction inherent in the virulent type of humor classified as puns. And any doubt in this direction must certainly be dissipated by citing an example which both figuratively and literally embodies and emphasizes the chain reaction. (Incidentally, the intricate involvements of meeting these conditions will no doubt attract the definite interest of the scientific-minded readers of TWS, bringing, as they do, into sharp focus the requisites of the hypotheses of multi-dimensional theories. For are not the complex extensions of associated ideas—the very heart or essence of a substantive pun ("tentative adjective with the usual cautious mental reservations, despite the anomaly of the bold challenge residing in this paragraph")—in the ratiocinative products of the cerebral convolutions involved, akin objectively to the ultra-sen-

sory movements or vibrations of the multi-dimensional realms?)

Now, let's see—where were we? Oh, yes. This further example we were talking about. It is found in the episode of a popular radio comedian, who will undoubtedly appreciate anonymity in this recital. Enslaving the role of the amateur magician, he allows himself to be locked in chains, but is unable to extricate himself therefrom. Whilst thus imprisoned, a kind friend, volunteering to go to a locksmith for help, meanwhile bolsters the victim's morale with the exhortation, "Keep your chain up."

And this, perpetrated upon a hapless public, without even the palliative of any comment, by way of sequel in the next week's program, that this helpful remark made the victim "a fugitive from a chain gag."

Realizing that this might well cut short my brief, but meteoric literary career in your cherished pages, I consign my fate to the gentle, discerning, kindly and sympathetic mind of Ye Editor, as these traits are proverbially considered the only possible antidote for puns. And most decidedly would I dispel any lurking suspicion that it is a (pun)itive expedition directed personally against the Editor.

In any event, come what may, my ardent interest in the fascinating pages of your publication will remain unabated: and I trust you will sometimes think of me as a tragic figure whose promising career was abruptly terminated by an insensate urge to embark upon the uncharted and perilous paths of unbounded obtrusion upon the limits of tolerance.—722 Barlum Hotel, Detroit, Michigan.

Meyer's career may be historic

May even reach the meteoric

Let big-word Weisman gain comfort

That nothing ever can cut it short.

FIVE-YEAR NEOPHYTE

by Marlene Hildebrandt

Sirs: This is my first letter to any magazine in my five years of reading science fiction. The April issue of THRILLING WONDER STORIES was swell. ALL GOOD EEMS and FUTURE PLANET took top honors. I like the Orig Prem series but you can get too much of a good thing. The rest of the stories were good.

To Mr. Orin F. Tremaine—I don't think men are mice enough to let women get so masculine. Any man who would sit back and let women grow like that shouldn't call himself a man. If all men had Mr. Tremaine's viewpoint some would have taken over long ago. Nuf said.

Any fan who would like to correspond with me, please do so. I would like to hear from teenage fans too, especially from New Jersey.—15 South Harley Avenue, Gloucester, New Jersey

All right, any man who is a man who is a man who is a man who is a man, opportunity knocks from Gloucester. Alas, we've forgotten just how Mr. Tremaine's women did grow—and we have no intention of checking up at this late date. So there!

I LOVE EARLE

by Benjamin Birnbaum

Dear Editor: Ya know, Ed, ya got Berger to do a good cover this time. Good composition, although slightly choked with print, reasonably possible background, luscious girl, as per usual, etc., etc. Just one thing wrong with it. What story did it illustrate? You should never have stopped giving cover credit on the title page. Tsk.

Stories all pretty good. Bradbury epic not all it was cracked up to be in last issue's blurbs, however. Liked Miss Brackett's acid short. Only one of this type as good was Hamilton's CONQUEST OF TWO WORLDS. I see another of Miss Brackett's marvelous ancient Mars novels coming up for next ish. Very good. All contributions gratefully received.

TRS: First three letters too long-winded. How did Russia get in a STP column anyway? Gad, we've been hearing enough about it everywhere else; why do we need it here too? And Mr. Hamell—dear, sweet, lovable Mr. Hamell—L. Ron Hubbard did NOT say that General Slavinsky was a Trotskyite; Mr. Hubbard merely said that the esteemed general used it as an excuse—very probable under the circumstances in the story. Ye Ed put in a good comment there, too. Three cheers for Ye Ed! (I want to get this letter printed.)

I agree with all stories mentioned in Someone-who-gave-his-(or hers)-address-but-forget-to-sign-his-name's letter. Could probably add a few more, but am in too much of a hurry to pore through my files. A Dodge fan, too! Wal, wal, keet, gladda meetcha. Maybe I'll writecha sometime. Where are the Great Ones this issue? Oliver, Sneary, and of course the Sopreme JOKE, and others. Have they, peering balefully out of the tangled vastness of their long white beards, decided to leave forever the hallowed halls of TRS to us younger fans? Perish the thought. Horrors, what would we do without their letters to copy from? (This is immediately followed by an infinitude of tsk.)

The reader's column this time out was great. I noticed in particular, as I said before, the increasing predominance of new fans (he said, from the pedestal of a year of letter-writing). Come one, come all, and drown the editor in letters. (I absolutely refuse to use the glaring opportunity to say that he needs drowning.) Random thought—that came to late and is not much good anyway: Why doesn't anyone consider the possibility that there might be fans in Central and South America? There must be some!—P. O. Box No. 26, Victory Mills, N. Y.

The chances are that there are plenty—because Latin and South America are flooded with all sorts of fantastic fiction in the lower price grades (we know—we've had a few books pirated down there—Ed.). But whether they have any such highly sentient "thing" as North American fandom is problematical. If they do, comes the revolution somewhere, but literally.

Don't worry about the Soviet apologists too much—not about their inaccurate interpretations at any rate. Fanatics, be they fanatics through fear or devotion, don't take time out to read accurately.

A TEAR IN OUR BEERSTEIN by Michael Tierstein

Ye Ed:

The Reader Speaks was very good. That way to be is as it should. On the Readers' heads may praises lie; They almost can write as well as I! And Ye Ed should overjoyed be. To read such stuff by such as we.

TRS always is worth reading. So is "The Frying Pan," and almost everything else in TWS and SS.—2241 61st Street, Brooklyn 4, New York.

A kindly soul is Michael T.
Or else in print to break would he.
Be as that may he need not fear
He gives with what Ye Ed would hear.

LONG VOYAGE SOMEWHERE by Rex Word

Dear Editor: Mr. Loomis' ULTIMATE PLANET in the April issue of THRILLING WONDER STORIES is to me a remarkable example of how different two well-known stories by the same author can be. Of course, "The Ultimate Planet" isn't "well-known" yet, but "The City of Glass" is, and its sequel, IRON MEN.

But I refer chiefly to the "City of Glass" when I say that two stories can be vastly different. For when I compare Mr. Loomis' latest work to the one just mentioned, I find it impossible to believe the same man wrote both of them. Yes, "The Ultimate Planet" is far superior to "City of Glass," which is remarkable, for the latter was a novel, and permitted the writer much more time to develop his ideas.

Many will argue that length is an unnecessary factor when developing a story idea, and that a good author can pack just as much emotional punch into a good short as a good novel. But of course, this is untrue.

What would Tchaikovsky's symphonies be if they were shortened? It takes time and length to do justice to anything. On those rare occasions when a writer gets as much into a short as a long, he should be applauded. Mr.

Loomis may consider himself applauded, at least from this individual.

Of course, "City of Glass" was written in an entirely different era of science-fiction and this factor probably contributed in no small way to the superiority of ULTIMATE PLANET. However, there is that hard-to-put-your-finger-on idea of natural development in a story—which certainly manifested itself here.

OPERATION PUMICE by Gallun turned out to be an interesting little short, though I have never been a lover of Gallun. There was a boy in the story and many will argue that Bradbury is the only man who can handle children in science-fiction. Which of course is sheer nonsense.

When specific individuals have become established as belonging to a specific class of anything, others who would rise to the same heights (or depths) through their own ingenuity or lack of same, tend to be ridiculed or at least be placed below the other.

A classic example: the famous impressionist in the world of music, Claude Debussy. It has often been said of Maurice Ravel that he is an outright copyist of Debussy's style. Ravel's style is similar to Debussy's, but should he purposely change it for the sake of being called an "original" composer? Of course, Gallun doesn't specialize in stories about children, but one thing sort of led to another.

The less said about Leigh Brackett the better. Her story in this issue was well up to her stately, barely readable. Why is it that women are always behind men when it comes to creative ability? Undoubtedly because of the lesser amount of women in creative work.

But even considering that, how many times does a woman surpass a man in creative work? And why aren't there more creative work? Lack of creative ability? Of course. No reason for it, of course, Brackett and St. Clair fall into precisely the same category.

Edmond Hamilton, as I once wrote you, couldn't write a bad story if he purposely attempted to. ALIEN EARTH was quite unique, especially in setting, which was very effective and unusual. It wasn't however, one of Hamilton's best works. Some of his novels, of course, top this one. Notably THE STAR KINGS and THE STAR OF LIFE.

And what was the name of the one where scientists created life from a brand-new element, to learn that it was an evil entity, and were forced to destroy it? That was a masterpiece to my mind, one of Hamilton's finest. I guess it's one of those queer tricks of something-or-other that doesn't allow me to remember the name.

Well, there I've panned Hamilton's wife and praised Hamilton. Now allow me to pan a friend, Rog Phillips, what were you thinking of when you wrote QUITE LOGICAL? Oh well, I'm no pusher of humor in science-fiction, so don't take my remarks to heart. For the type it was, you did very well, in view of some of your other work, you are at least extremely versatile—and also quite original. And a good writer, too!

Having already mentioned Margaret St. Clair in connection with Leigh Brackett, I shall omit any comment on her story and move on to ON THE HOUSE by Benj. Miller, or if you please Henry Kuttner.

A time-traveling story that succeeded in being boring, uninteresting, tedious, and what-not. Indeed an unusual circumstance. For being the embodiment of this circumstance, some sort of honor, even thought dubious in the extreme, to put it mildly, should be bestowed upon Henry Kuttner's latest failure.

At this point, Bradbury happens to be in the spotlight of discussion. A regrettable point, for that makes two stories right in a row that fall into the same class. Yes, I fear the adjectives apply most aptly to this effort. I have read some Bradbury stories I liked, though. THE CREATURES THAT TIME FORGOT for example. However, I can't think of any more. Oh, possibly THE MILLION YEAR PING.

Finally, something to rave about. Leinster, versatile in the extreme for being responsible for the Black Rat, certainly presented an interesting story in THE LOST RACE. Not outstanding, necessarily, but fascinating enough to merit one's reading straight through it with no particular desire to put the magazine down. I especially liked the ending. Most pleasing ending. Very good idea too, developed in a most ordinary manner, but still good.

Brown's egg has no place in a science-fiction magazine. What was the purpose of it? To bid good-bye to a vanishing era in science-fiction? Or to ridicule it as it now stands. Brown was never any good, though, so I'm not surprised I am too surprised that you accepted this. Without doubt you thought it would provoke laughter. It provoked, period.

THE BOX was a perfect example of the average story, which hardly exists any more. They're either above or below. But this was just on that average line. Well, one can't gripe with only one average story in an issue. "Box" was bad, at least, but it contained some very interesting little bits here and there.

Tremaine's MAN OF THE FUTURE article was good,

strangely enough. I would enjoy, I think, a Tremaine story-fiction that is.

As for the art, you overwork Finlay. Far too much Finlay. However, he is a good artist. It's difficult to get too much of him. You managed it somehow. Present a few more artists. The cover never varies. Perhaps this is a good factor. Even if no particular point of it is particularly outstanding or pleasing.

As to your editorial, it was unusually interesting this time, I must say. The bit about desires being detrimental to oneself is true. It's funny to hear some of the people talk who swear for Orson Welles' program 10 years ago. You'd fear nobody could act like they did. You'd swear it.

Well, people do funny things under unusual circumstances. Welles was fortunate. He made a reputation out of that incident such as no other man has. A little more and he would have now been notorious rather than famous.

Your price increase and additional pages have added much to the appearance of the magazine. I believe every magazine on the market should be priced at a quarter. Anything below that is too little to pay. That applies to magazines other than science-fiction magazines.

Your print is a trifle too small and though your attempts to give us much matter for our money are admirable, I think that slightly larger print would be worth more than the few extra pages gained the other way.

Let us hope that this issue, which regrettably drops below the norm, doesn't serve to introduce one of those slump periods which magazines are wont to fall into now and then.

I don't think so.—El Segundo, Calif.

Surely you're kidding about length being necessary for greatness in the alleged arts. Perhaps Tchaikovsky needed it. Chopin, Debussy, Scarlatti, your Ravel, Stravinski and many, many more did not. Nor did Dostoevsky, Kipling, O. Henry or many others in writing. It all depends upon what the author wishes to tackle. As many works are wrecked by padding to overlength than by the reverse.

Who says only Bradbury can write children in stf? It's a ridiculous statement, so much so that we shan't even trouble to prove its refutation. As for the merits of women versus men in the arts, be careful, Rex, old boy. The gals are doing all right these days in just about all of them.

For the rest, you are utterly wrong about Benj. Miller being Kuttner. In fact, you could hardly be wronger. And Leinster certainly never had anything to do with the Black Bat. Incidentally, the first story of the Black Bat, which appeared in *Black Book Detective* in July, 1939, was authored by Norman A. Daniels, a writer not unknown to stf.

So take it easy, Rex, sit back and relax. Then write us again. We agree with you in hoping we aren't in a slump. By the time you read this you'll have the answer.

BERGEYBURGER by Jerri Bullock

Dear Editor: Pause here for moans, sighs and various assorted groans! What, may I be so bold to ask, happened to the April issue of "you-know-what"? There is still no sign of the current TWS on the bookstands in the Bay Area. W'aa'matta', did you get snowed in back there? Egads! How I look forward to your crummy (pardon) wonderful mag; and now (soh) I have to miss one of the issues you promised would be the best yet. Okay, quit twisting my arm: I'll take a subscription. That way I might get the thing. I hope—I hope—I hope.—\$2500 Lemon Avenue, Hayward, Calif.

You touch us deeply, Jerri, but deeply. However, you succeeded in touching our circulation department much more so. Hope by this time at least you've seen the issue in question, which was published as per schedule.

TSK-TSK! by Milton A. Rothman

Dear Editor: I fear that you deserve a vigorous tak-tak for the science fillers in the April TWS. Their inaccuracy is so stupendous that I suspect somebody is playing somebody a joke and that you are snickering at me for taking the whole thing seriously.

But if you must publish science articles and fillers, I think your readers would appreciate it more if they were written by somebody who knew a wee bit about the subject. I'll show you what I mean.

On page 129 we have a filler entitled "Whatas Matter?" by Carter Sprague. In paragraph 1 it is stated that the Dirac theory of the electron treats the electron as a fixed point. Actually, the Dirac theory is a wave theory, and considers the electron as a packet of waves, which is never fixed.

Paragraph 2: Clerk Maxwell never heard of an electron, for the electron was not discovered until 1898 (by J. J. Thomson) and Maxwell died in 1879. Maxwell's waves referred only to radiation, such as light and radio. The wave theory of the electron did not appear until 1924, when it was proposed by Louis de Broglie.

Curiously, the last paragraph of the article is correct. The exact interaction of an electron with an electromagnetic field still has to be explained—for the curious reason that the present-day theories result in an infinite self-energy for the electron.

Now take a look on page 104, where there is a thing called the Coming Bombardier. We'll skip the part about the "smallest electron" (They're all the same size). But a mesotron (or meeson) is not smaller than an electron, it is at least 200 times heavier than an electron.

It was not "first photographed late last year," but has been on record since 1934, and photographs have been taken of it in an airplane since 1941 at least.

Now the part about "five meesotrons were scheduled to be in operation . . ." is what makes me think the whole thing is just a gag. "So I turned on my trusty meeson," said Dr. Dope, "and bombarded a couple of nuclei with fast cyclotrons. . . . Get it?"

In other words, the meeson is a particle halfway between the electron and the proton (they have six different kinds of meesotrons, by the way), and it comes either from cosmic rays, or from very large synchrotrons, which are pretty expensive machines, so it is not correct to say that meesotrons are easier to use than other particles.

I might also remark that Noel Loomis, in *The Ultimate Planet*, writes some of the silliest scientific double-talk I've seen in years, e.g.: "Cusp foresaw that a brand new technology would spring up in the place of science." What in hell does that mean?

The secret of good double-talk is that it must sound as if it makes sense. All of the good of writers have had the knack of doing that. Loomis hasn't learned how this is done yet.

I'll end this critique by saying that Ray Bradbury's *Concrete Mixer* is very lovely. That's my boy.—\$113 North Franklin Street, Philadelphia 22, Pennsylvania.

All we can say is that the filler you so haughtily abolish came from very solid (supposedly) scientific sources. Perhaps Mr. Sprague and others (we are not excepting ourselves) diddled them into insensibility in transmuting them to the printed page.

At any rate, we promise to be more careful in the future.

Glad you liked the Bradbury, Milton. We thought it was one of his best.

AMIALE REACTION by Bob Dittman

Dear Ed: Just finished reading your last issue. I am pleasantly surprised by the improvement of your magazine. I really haven't been reading T.W.S. for very long. But a few years ago I bought an issue of T.W.S. and I

thought the magazine was pretty poor, so on this judgment I didn't buy another issue until about six months ago. I bought it with some regrets, but anything was better than sitting around doing nothing. Boy! was I surprised!

I think your Reader's Section is the best I have read. You really made an improvement in it. I especially like your replies to the readers—so maybe you can answer this question. Whatever happened to Nelson S. Bond and Eando Binder? I thought that they were both very good. They're probably both one and the same person. I also agree with the suggestion of giving an illustration to the writer of the best letter.

I have enjoyed every story written in this issue and I don't see why so many people don't enjoy the Orig Prem series. This is the first I have read and I thought that it was very good.

Well, I don't want to make this letter too long so I'll sign off for now, thanks for listening.—127 Blyedale Ave., San Francisco, California.

We'll answer your question. Nelson S. Bond has graduated from stf magazines to far more exalted markets. He makes an occasional slick magazine appearance and his Mr. Merganthwirker's Lobblies is one of the most anthologized and radioed fantasies of this, our era.

As for the Binders, Earl and Otto—well, Earl has retired from writing in favor of a business career while Otto, save for a brief appearance in one of our stf magazines last year, has been concentrating on comic book continuities for, lo, these many years. Hence, it is unlikely that you'll be seeing that Eando byline again. The boys were mighty good in their day.

As for illustration-award, who's going to pick the best letter? Not we! We wish to remain more or less intact upon this vale of jeers a bit longer. Got three novels to write and there's a big, beautiful, red-headed sculptress who . . . Anyway, you should understand by now.

BEMCRAZY by Max Altom

Ed: Once upon a time there lived in Bedlam-in-the-Belfry a boy, fair of aspect was he and upon his immature brow dwelt the sweetness of the mind in bloom. Rose petals from this garden grew in roses that settled on his cheek, and his walk was free, his laughter shrill and all thru the land around he was known as the epitome of virtue.

But sad to say, there dwelt behind this fair facade, alas, an imagination. Peopled it was with the people of the never-never lands, open only to the pure in mind, unsmiled with the drabness of the mundane. Yet this led to his downfall.

One day while rummaging thru a friend's book-shelf hoping to stumble upon some piece of divine wisdom, he uncovered what at first glance appeared to be an expose of Satan's administration in Hell. Instead of laughingly tossing the magazine into the flames, he also, opened the pages, and . . .

But why go further, to the addicts reading this, the story is too, too well known. Of course the story wasn't like the cover. That would be a distinct breach of policy. However, nowadays that same respected fair-haired boy now slinks through the streets on his way from the newsstand, ashamed to show his face to the world. For after all, what can a town think of a boy who reads of mad monsters in what mad universe, chasing off females?

Look, Ye Ed, I've suffered with you ever since those Xeno and Frog-eyes days, and I've been one of the many that appreciated and applauded the terrific earnest of the postwar stories. And when the BRMs family were given the gate, oh JOY!!! But the good work is not yet complete. Editor . . . THAT COVER MUST GO!

Just because your magazine is succeeding with the thrud,

blunder and slurp type of cover doesn't necessarily mean that it's the cover that's influencing sales. Perhaps it's in spite of the cover, huh?—207 East 21st St., Brooklyn 12, New York.

For the two-thousandth time, bub, we have nothing—nothing—NOTHING to do with the covers: But we're sorry you don't like them. And as we think we said before, we do like 'em. And we think Bergey turns out some first-rate jobs.

POOR, POOR STF by Corporal John G. Carmichael, AF 11 150 956

Dear Editor: Having just finished perusing a large collection of poor Science Fiction stories entitled (in large red and yellow letters) Thrilling Wonder Stories. I have been impelled to write you a criticism of same, and an answer to some of the letters contained in the letter column of the said magazine.

The magazine to which I refer, of course, is the one labeled VOL. XXXIV, No. 1, and dated April, 1949.

The lead novel of this magazine, entitled The Ultimate Planet, may be that, but it is certainly no ultimate in stories. The characters seemed a mite unreal and the story did not hang together well.

Next was a readable yarn, entitled Alien Earth. I expected Space Opera's interplanetary tale, but the story turned out to be an entertaining tale of some strange aspects of earth herself. Did I say readable? I meant excellent of course.

On the House, I have not yet read. Nor will I, until later this month. I have run so short of good reading matter that I can stomach anything, just to have something to read.

The Concrete Mixer (I can almost hear some one yelling "putty, putty") was about the worst in the issue. Nuff said.

Operation Pumice was all right, but not up to the standard I have come to expect of you in recent months. Quest of the Starhope was good. No comment necessary.

Quite logical was probably the best of the issue. The Hierophants will pass in a crowd, and was about average for this issue.

The lost Race, I liked. No end. Nuff said. All Good Bema. Up, Welllll, I guess it was good enough. Made a cockeyed sort of sense, after I pushed over it for a while.

The Box was excellent, though I have read many stories as more or less the same theme.

I have noticed, in the current, and a few past issues, a large number of letters that start "This is the first letter I have written to any—" and then go on as though the reason for this silence is that the writer has just learned to write. Please, Mr. Editor.

Also, one Elliott M. Braverman (Braver man than who, Elliott?) in the current issue, says at some length, "Your magazine's no good, never has been any good and never will be any good." In this case, Elliott, why buy the rag?

I know, some of your letter hacks will say I'm expressing the same sentiments. But I'm not. I merely say this issue is below par. And (and I mean it, the same sense as that expression is used in golf, Mr. Editor.) Mr. Braverman says, in effect, that the mag has never been good and never will be.

I haven't complained my perusal of the letter section, so I will make no more comments on the letters. Except to say that I like your type of letter section in your type of mag, though it would be out of place in most of your competitors.

However, I will speak of the article, The Man of The Future. Monsieur Tremaine seems to agree with the official Russian view of heredity. Please Sir, acquired characteristics are not transmitted to the offspring. Changes in heredity may be brought about by environmental factors, to be sure, but these changes are rarely the same as the changes which these same factors bring about in the fully developed creature.

Of course, if the offspring of the best men in each field were to be mated in the same, scientifically planned breeding scheme as has been used in the breeding of livestock, some such specialization of body form and function as you foresee might come about, but the cooperation of human in such a program under any conceivable democratic government is difficult to imagine.

No, I think your man of the future is nothing more than a bad dream. Of course there will be, by the process of natural selection, a gradual improvement in the human

race but it will be an overall improvement, such has already been noticed, and not a specialization.

Well, this seems to cover what I have read of your magazine, and with a parting request that your cover be changed, I will close for now.—Box 121A, Flight "B", Hq & Hq Squadron, 2758 AFB, Murco AFB, Murco, Calif.

We're keeping out of genetics until somebody comes up with a human BEM. Some say the race not only already is but always has been BEMmish. They could be right, at that.

Thanks for an intelligent and honest if somewhat acid critique, Corporal.

DANDRUFF, NO DOUBT

by Miss Gay Mottley

Dear Editor: Oh, to be in the editor's hair, now that April's here. In the first place, was the letter-salutation to Ray Johnson's letter intentional on his part or do TWS's typesetters have opinions too? "Dead Editor," indeed.

Very much alive, I'd say, and passing bigger bucks than ever. I've seen better side-stepping, though, than you got off on the question of the Trotskyite general's plausibility. As a matter of fact, you never did have the nerve to come right out and say Trotskyism-under-Stalin-Stalin's-army is plausible, and a good thing, too. You would probably have been struck by lightning.

I would hazard the guess that picking this item up as a boner is not solely the privilege of the "inexorably class-conscious"; all it takes is a little knowledge of history. But nobody has accused L. Ron Hubbard yet of knowing anything about history, to my knowledge, and I guess you've kept yourself safe from that slander too by refusing to commit yourself on the point at issue.

There are times, not like the above, when your reasoning really becomes devious. One of them is the patient tone of explanation you adopt when you explain—not once but several times—that \$10,000 Miles, Etc., was a dream. Not only a dream, but a "nightmare" and a "nightmare" young man. Where was your editorial acumen when you bought that worst of all reader-chests, a story in a dream frame?

The only person who ever handled it well is Lewis Carroll, and he let the reader in on the secret at the very beginning—if the reader was old enough to see the signs; which is to say, a dream to care. If I had been you and had accidentally paid out cash money for a dream-story, I would go hide my head. I certainly wouldn't converse about it openly.

Another time was when, several months ago, you eschewed power-urge and dictatorship yaras. It has occurred to me, and I pass it on to you, that one reason why such yaras have been so successful in the beginning of science-fiction (and of fiction of the adventure type) is because they make use of a basic, a constant, in human relationships. Just like *John*. Or anyhow, comparably like *John*.

To get through with The Reader Speaks and get on to the stories like many, many others, I read the letter column first, and could comment exhaustively on almost every letter, including the good ones—on F. Orlin Tremaine's pseudo-science. Every point well taken. And I, too, would like to ask the vital question: what is Tremaine's source material? Lyssenko's "discoveries"?

The *Ultimate Pioneer* is a good job, and was lots of fun to read. It was transparent as glass, of course, but as long as it held my interest I'm not kicking. Only one embarrassing question: what reason could Cusp have had for expecting the Grunk to return to the outpost? It didn't feed, need his protection or even like him. Another possible objection—the unlikelihood of Cusp's expecting to gain anything at all by post mortem—will remain unexplained, since the story would collapse miserably without it.

I was particularly struck by the care and ease with which Loomis showed Cusp asking for the kind of attentions he himself would never offer; as when he sought McAvity out after his stomach upset and coldly informed him he should have been solicitous. Illustrations seldom bother me; the all by post mortem—will remain unexplained, since the story would collapse miserably without it.

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plot that weakens it; otherwise I can't understand why the beloved subject of Moon Rocket 1 tags in second while New-York-in-that-same-old-trying-pan hits first.

St. Clair has written another stale old notion back into beauty; the job was spoiled only by the give-away illustration. Incidentally, peace be unto Jick and Oona—may they never rise again. Even supposing they were just like Saturday Evening Post stories of the future, a-z fans aren't SEP-type characters. They're characters, all right, I'll grant you that, but they don't as a group, read the alikes—now or in 1960.

The Brackett was dreamy but predictable and two pairs of Mr.-and-Mrs. being the last sole and heart-breaking survivors of two separate planets, all one pair too many. I felt for Butch, but I didn't believe in Chika and Hian very much. Miss Brackett was seeing double, and I could hardly see it at all. . . .

Rog Phillips was very funny indeed, except for the strain of overwriting the first few pages, and the premise was a howler. . . . Murray Leinster would interest me more if he didn't repeat himself so, and if he too weren't so everlastingly predictable. . . . Fred Brown came a cropper; I suppose the very best must be weak sometimes: I'm only glad it doesn't happen to him often.

Allen Karth irritated me. A nettle killed a fern with its sting. Farris killed a rose, and the trees turned against him? And so on. It would have been a swell story without the telepathy, and if Farris and Lys had shown any resemblance to human beings, Farris particularly sounds like a stage Britisher: "You've got to cut this and leave here at once." "He's got to come back, for he may have an antidote. . . . Why didn't they just curl up on a couch and let the stuff wear off?"

Oh, no; then Hamilton couldn't have saved his alien world—or, come to notice it (it's hard to make these little distinctions when being bored to distraction) it's Hamilton the World-Wrecker now, isn't it?—with his handy little Burmese Blight! That name is going to ring down through the corridors of time, sir. It is of only a slightly less significant distance than Dreiser's Bitch, the disease from which so many of your writers suffer.

On the House is better than the usual Org Prem story. That's not saying much, though, is it?

And as for Ray Bradbury . . . he writes like a mixture of de Maupassant and Saroyan with a term paper by a fourteen-year-old thrown in for grammar's sake. The mixture is a disaster, and the disaster well before using. Or just shaken. That would have left him with one hell of a good story idea, and with all the affections, run-on sentences, and drearily ineffectual soul-probing left out, he might even have ended up with a good story.

But then the bobby-soxers would have had nothing to scream about, would they?

I'm sorry I've run on overlong. If I've castigated both the editor and his choices, you may—if you feel inclined—take it as a compliment. Unless it levels off here, TWS is on a sharp upgrade that is going to take it wonderful places. (Vide St. Clair, Gallon, Blish, Loomis, and your Intelligent Reader, Joe Hammer. And, to look back a little, that swell story, "Fruits of the Agathos," and in Starline, *Against the Fall of Night*, than which no lovelier book-length could be wanted.) And, to show you why my complaints are a compliment—a few months ago I wouldn't have thought it worth while to bother.

Sure it's all in fun. And I may or may not be immersed in dialectics; I wouldn't know. All I know is that science-fiction is my favorite hobby—but I like so little of it! And it could be better without you (or any other editor's) selling any fewer copies. All I can do is keep trying, and whenever there looks to be a renaissance on the way, throw in my three cents. Wonder used to be my favorite magazine, twelve or thirteen years ago and it may be again.—340 Ingleside Avenue, Catonsville, Maryland.

Since we are actually more intrigued with the process of collecting bucks than passing them, we won't try to glib this one way. All we can say is that we are in there trying.

Write us again, Gay, and don't spare the paper.

HUMAN BEM?

by Michael Wigodsky

Dear parsec: A word, a word, I'll send to this editor. All of the best live on the topmost floor. (Singing to the melody of "His Dungenell Cell" from Pinaflore.)

Comments on Issue April:
Ray Johnson seems to think that I like "preconscious infant" stories. I don't. Usually, that is, I've liked two of this type. One was Kuttner's "Abaddon". The other was

"In Hiding", in your "most respected competitor". (Get Wilmar Shiras. She's the first female writer I aside from Margaret Merrill (get Merrill) I've seen who can write sf, as distinct from fantasy.

A shout in the general direction of Binged (Prem) Miller. If we may judge by the analogy of later ceremonies performed by various Indian tribes, and we may, the sacrifice represented the god or goddess, and was killed to ensure that the god or goddess would remain young, by dying early, and being resurrected. For it would be a great calamity were the god to grow old naturally.

The sacrifices were chosen from the youngest and most beautiful of the maidens, and were kept in strict seclusion from the time of the selection to the time of the sacrifice. Thus, though Hulp tells Steve that she had been secluded all of her early life, and being resurrected, it was allowed great freedom the day before the sacrifice, it would actually have been the other way around.

If Miller intends to include religious ceremonies in any of his future Orig Prem stories, he should read "The Golden Bough." (For reference on the above statements, see the chapter "Killing the god in Mexico.")

Then, about the leader story, Cusp is quite within his rights in stating that environment is more important than heredity, as this is still a matter of controversy. However, he denies that heredity has any influence, except, by inference, the effect of inheritance of acquired characteristics. It is probably all right, since he is proved wrong in the end. However, I refuse to believe that any educated person could seriously hold such beliefs.

The cover: If you're determined to use covers which do not illustrate get a few semi-abstracts from Alejandro Canedo.

Hamilton does another of his good jobs of plagiarism, from "The Woman of the Wood" this time. (Editor: I know the legal definition of plagiarism as well as you do, and I'm well up on the case of "The Cohens and the Kellys." However, though no jury would convict Hamilton, the resemblance is so obvious, and so obviously intentional, that I feel justified in using the term.)

"Operation Pumice" would have gone over well back in the brave days of '39.

"The Box" would have been good even in your "most respected rival." In TWS it was superb.

The Concrete Mixer was a close second, though Dear Ray has done much better. And third was Brown.

I've already talked about the bad ones (though Miller's ttt (time travel tale) was good except for the boner about the sacrifice). The ones I haven't mentioned were neither good nor bad, nothing special in either direction.

A word about the 37 dramatic situations. Only two of these are devoted to the "racy" situations, and most of these have appeared in recent best-sellers. Besides, as a glance at the introduction will show, Potti started out with the express purpose of proving that there are only 35 possible dramatic situations.—2205 Kipling Avenue, Houston 6, Texas.

Guess we'll have to dust off our Polti and reread those famous thirty-six.

Confidentially, we don't like precocious infant yarns any better than we do dictator dittos.

But when a good story about anything turns up, we are happy to warp or woof such ephemeral items as "editorial policy" and demand a check for the author from our publisher.

Speaking of acquired or environmental characteristics, how about that Kipling Avenue address? Could be it could be significant—or could it? Time will tell. Come to think of it, time is the only talkative dimension.

CONQUEST OF TWO AUTHORS by Dirk Schaeffer

Dear Ed: I've had something on my mind for almost a year now, and, seeing as it concerns your mag, I finally got around to doing it. I tell you about it. It is present one of the greatest living authors of fantasy is writing for TWS. I refer, of course, to Ray Bradbury. Now, from various letters in the reader's column in TWS and SS that I have read, I deduce that two of his stories

are equally credited with being his greatest. These are: "Million Year Picnic," and "... And the Moon be still as Bright."

I've never read "Million Year Picnic" so we can forget about it right now. I am ready to admit that of all the Bradbury stories I've read "... And the Moon be still as Bright" was the best, but—I think it was a steal from Edmond Hamilton's "Conquest of Two Worlds." Now, wait a minute. I am not condemning Bradbury for that. All I want to do is point out the similarities and see if you don't agree with me. And, as a matter of fact, I think Bradbury's story was better than Hamilton's, but not much better. Both are indubitably classics. But back to the similarities:

Item I. The plot of both stories seems to be one man's (I'll call him the hero, in the future) fight for what he believes right, only to be ultimately shaken from this belief through the sacrifice of one of his lifelong friends, who gave his life for the cause against which the hero was fighting. (I'm sorry, Ed, but I don't have the stories at hand, nor do I remember the names of the characters. Nevertheless, I shall do my best without them.)

Item II. In both stories you find a world being invaded by Earth forces. The invasions differ though, in the sense that Hamilton's invasion is strictly physical, whereas Bradbury's is entirely moral. That is, Hamilton drew a marvelous picture of a world (sorry, two worlds) being ruthlessly destroyed; whereas Bradbury's picture was that of long-dread-but-still-miraculously-beautiful planet. Both are so powerful, but I'd give Bradbury a slight edge over Hamilton.

Item III. In both stories the hero's lifelong friend turns to the enemy, and gets killed in an event to aid them. Of course, in "... And the Moon be still as Bright" the enemy was not tangible, it was just the gloomy (how can I phrase this?), almost eerie atmosphere of Mars, dead cities, and the war was definitely fought on both sides; and in both stories the hero's friend did lose their lives fighting for the enemy. In Ray's story the hero's friend went, I believe, Mars-mad, tried to kill the crew of the space-ship (of which the hero was captain), and was then killed by the crew. In Ed's tale the hero's friend turned his efforts to helping the Jovians (that is what you call residents of Jupiter, isn't it, Ed.), and, seeing defeat, commits suicide by blowing himself and the remaining Jovians to Kingdom Come.

Item IV. The ending of both stories is the defeat of the enemy, mainly through the efforts of the hero, and his realization of the fact that he has been fighting for the wrong side. Hamilton brings this out by having his hero who has spent his life working out to top the best of Earth's army (and he's definitely won everything he has ever striven for. Bradbury has one of the crew-members (I think his name was Whitey) use some of the turrets of one of Mars' dead cities for target practice, and then has his hero "knock Whitey's teeth out." In other words he too came to respect the cities of ancient Mars as something far greater than himself or even Earth. There you are, Ed: is it coincidence or is it more than that? (I won't say it's plagiarism: I got thoroughly berated by the editor of another mag for using that term in reference to one of his favorite authors.) But I DO think it's more than coincidence. And let me say again, even if Bradbury did steal the idea from Hamilton, I don't hold it against him; his story is at least as good as Edmond's.

After what you did to my last letter, Ed (you rat), I see little sense in exerting myself to the extent of reviewing the stories in the April ish, but I will toss a few comments your way.

Never thought you'd print anything by Phillips. As a matter of fact, I thought he was—well, that is—dead. I shall we say, under contract for another publishing house (no names, huh?). His story, though not as good as others he has done, was very satisfactory.

Murray Leinster's "Lost Race" was the first story I have read, that he has written, that I consider worth the paper it was printed on. It was good; an extremely pleasant surprise.

Frederic Brown is wonderful, give us a lot more of him. By the way, is he a pen-name for anyone I might know of?

Prem and Tremaine are getting extremely dull. They were good for a change but they are washed up now.

Loomis is better than the average; is he a pen-name for Hamilton? (Awright, awright, just thought I'd ask.) Finally—"The Concrete Mixer." How does Bradbury do it? It's superlative, doesn't it? My only complaint—the story, that is, Bradbury gets exactly the same slant on civilisation that I have. Three cheers, fellow cynic. (By the way, Ed, he really is a Martian, isn't he?)

Need I say that the issue on the whole was the best I've seen in a long, long time?—808 West Center Street, Alma, Michigan.

Poor Edmond, the world wrecker—let's just call this the E. Hamilton Plagiarism

month. Actually, no author has ever yet, legally, morally or any other way, had the effrontery to make an idea his own. And if another author, essaying the same or a similar theme, comes up with a somewhat similar treatment, it still is in no sense plagiarism. The two stories in question were as different in mood as, say, "Dracula" and "Lady into Fox"—both of which classics dealt with human metamorphosis.

While on the subject of environmental effects upon the human (Wigodsky's Kipling Avenue address) critter, how about that town you live in. In our lexicon *Alma* is a variant of *Alme* or *Almeh*, which mean only one thing—an Egyptian dancing girl. Tell us it's true!

MANXMAN

by C. Stewart Metchette

Dear Editor: Sometime ago you had an editorial dealing with humor in science-fiction and advocated a loosening of stf themes such as science dictatorships and other futuristic types of absolutism. In the past, *Thrilling Wonder* and *Startling* had made attempts to run "funny" stf stories; I can remember four distinct series, of which two were moderately successful and two were fiascos.

Cummings' "Tubby" yarns and Fitzgerald's "Gregory" series were the failures, while Kelvin Kent's "Pete Manx" and Mr. St. Clair's "Oona & Jick" stories were in the majority successes. Then came 1948 and 1949. TWS & SS were on the march and once more Ye Ed made an attempt to garner humorous stf stories.

Henry Kuttner began his Hogben series, which I consider his best humor in stf . . . even barring Gallegher; and Benj. Miller attempted humor with Steve Andro and Orig Prem. Now, the Hogbens were a riot, but Prem was mostly dull. I read Miller's tales, but I still think that Pete Manx reprints would have fulfilled TWS & SS efforts to inject humor into the contents page.

In the April issue of TWS, we have another Miller "Orig Prem" novelet, Fred Brown's "All Good Bems" and Rog Phillips' "Quite Logical." As usual Prem was funny, but was surpassed by the hilarious "Quite Logical." The Brown story was funny, funnier than the one by Brown's "Mad Universe" was. I don't like the short story, can you guess what I think about the novelet?

Then, of course, you have satire and sarcasm. Ray Bradbury and Noel Loomis head that department. Bradbury seems to enjoy pointing out our faults by looking at them with the perspective of a Martian. All very well, but let's hope his satire doesn't become the cynicism of Sinclair Lewis.

Phillips heads the April line-up, with Brown, Miller and Bradbury in behind him.

Looking ahead, you prophesy Henry Kuttner with the Hogbens and more of Van Vogt, Temple and Blash. If you can get Kuttner to do more Hogbens, or at least have Kelvin Kent do another "Manx" story, I'll be happy. And if van Vogt can turn out another "Slant" by all means grab it!

Still thinking on stf writers turning out yarns with a fan world and background, I've conjured up a story that has Brown beat by a light year. I'm thinking of H. H. Holmes' "ROCKET to the MORGUE," and that yarn is a 'tee story' with stf background. Now, if I see know that H. H. Holmes is none other than Anthony Boucher; therefore, can't you have Mr. Boucher do something for TWS and SS?

Talking about 'tee yarns with stf atmospheres, why not duplicate Leslie Charteris' "The Darker Drink." If you can't get originals, then why not reprint "The Gold Standard" & "Mr. Who Liked Ann." But I see know your detective mags are running a series of Saint novels, so that will have to content the Halos for the nonce.

Now fully convinced, via Asteroid X and Ray Bradbury, that Cleve Cartmill is not Henry Kuttner, I sign off as: I WANT MORE HOGBENS, MORE PETE MANX and less Orig Prem!—3551 King Street, Windsor, Ontario, Canada

Okay, okay, okay, Stewy. We'll go along with you though we don't believe the Manx

series is revivable at present. We've selected the first of the series for a 1950 entry in the SS Hall of Fame, however, so don't say we're not trying to oblige.

You've got us balled up on Orig Prem. In paragraph three of your letter you say, "but Prem was mostly dull." Then, in paragraph four, you say, "As usual, Prem was funny." Then, in your sign-off, you demand less of the po' ol' robot. Make up the alleged mind, old man.

We wish Boucher could find the time to turn out some fresh stf for us but he's profitably engaged in other fields at present. "Rocket to the Morgue" was a grand job—one of our favorites. Also Charteris—but the Saint is unpredictable in every field save that of entertainment. You'll be getting an occasional Hogben. I wish we could promise more but Kuttner works along his own ideas.

FULL OF FAVORITES

by Pat Crossley

Dear Editor: Although I have been reading science fiction for twenty years, I have never gotten around to writing to one of the Mags. However, this issue (April) is so full of my favorite authors that I just had to write and tell you about it.

What an issue! Bradbury, Rog Phillips, Hamilton, Brackett, Leinster, St. Clair, and Benj. Miller, all in one issue! It's almost too much. I shall certainly treasure this one.

As to rating the stories (I notice most of the readers do), that really presents a problem. They are all good, in their different ways. The funniest one, and I might add, the funniest I've read in years, is Rog Phillips' story about the pink rabbits. The Orig Prem is funny too. I think he's cute. (Such a description for a robot!)

Quest of the Starhope was good. Quintal was certainly an unlikeable character, wasn't he? I liked the Lost Race, too. Leinster certainly can keep you guessing until the end. The Hierophants was an unusual story, but I think I like Oona and Jick better. I like the light, humorous adventures of the Housewife of the Future.

Bradbury and Hamilton are always good. Which reminds me—one of my favorite novels is "Girl in the Golden Atom" by Ray—is it Cummings or Bradbury? At any rate, how about another one like that, Ray? That I should like to nominate as a Hall of Fame Classic.

The Reader speaks is always interesting. I enjoy reading what the others think—and composing my own letter mentally. As I said before, this is the first time I've actually had (I should say taken) time to sit down and write. Hope I haven't bored you.

Best wishes for future issues, and if you don't mind, I'll send you a couple of copies of the Rocket News Letter, the Journal of the Chicago Rocket Society, for your Fry-ing Pan.—717 Grand Avenue, Ocosso, Michigan.

It was Cummings, not Bradbury, Pat. Thanks for the letter. Your Journal of the Chicago Rocket Society doesn't seem to have any Fry-ing Pan howlers—it hasn't since that pre-Fry-ing Pan issue when somebody announced the possibility of using the juice from orange peels as rocket fuel. However, it will be reviewed as usual in the fanzine department of our companion gazette next month. (Pat, the uninitiated, is secretary of the Chicago Rocket Society).

Write us again and don't spare the adrenalin.

WHO SAYS SO? by Marvin Williams

Dear Editor: This may come a little late, but better late than never, as they say.

The ULTIMATE PLANET was an ultimate story. NL is getting better all the time. Keep the shackles around his neck and you can't lose. Grunk! Sounds like Bradbury after an inspiring shot of red eye.

ALIEN EARTH was okay. Not Hamilton's high, but okay. Plot seemed decrepit.

QUEST OF THE STARHOPE was good also. Leigh Brackett is one of my favorites. Glad she came back.

THE CONCRETE MIXER was amusing. Some of Brad's are. Some, hurr!

Glad to see you have Phillips. You know what editor of you know what magazine had him pretty well tied up there for a while. KP has real talent if he lets himself go.

Leinster had a pretty good one too, but then, he's always got a good one. He's okay.

Brown shudda stood in bed. Ditto with Miller and Bligh.

Margaret St. Clair is improving rapidly. Maybe she killed off Ona and Jack, huh?

Having laconically done away with the stories, we turn our eager little minds to the illo's.

The Finlays were good, needless to say, especially the one on 15. Napoli is still here. I see. His were all corny except the one on pages 54-55 for ALIEN EARTH. That was passable.

The Stevens one for LOST RACE was good. Stevens is the best, I think. If Finlay would go back to the dot shading he would take first again. That was an incomparable style. I have never seen anything like it.

THS was pretty hot.

Conner's back and TWS's got him.

Williams is back and nobody wants him.

Rarivenes had a good letter. Give him a Martian credit for his talk about Berger.

Well, I wonder when your linotype man is going to set my address down right. Get this good now. . . It's fourteen (14) thirty-one (31) 1431 Second (2nd) Avenue south east (S. E.) Get it? 1431 2nd Avenue S. E. Cedar Rapids, Iowa. I don't really care but I like to have things right.

All in all, Marvin, the above is what we call saying very little in a very few words. Nice going.

THE ULTIMATE LETTER by Robert A. Rivenes

Dear Editor: I can't figure it out. Your April issue of TWS sure caught me at a good time because it is impossible for me to say anything derogatory about it. I can say, however, that it is the best issue of TWS I have read (it is the fifth). Maybe the absence of a long novel had something to do with it. I've had my fill of those. My observations of the issue follow.

I can hardly believe it. A Berger cover without his name on it and with no pretense of illustrating a story. After all, who could write a story based on that illo. Here now. I was going to be nice for a change. That's five demerits. The Ultimate Planet—The ending was kind of disappointing. I thought surely that Grunk would transmit

McAvity to safety instead of that quick freeze stunt. The title was also beyond me.

Operation Pacifice—Kept waiting for the boy to pop out of a locker somewhere on the ship but I guess stow-aways are out of season.

Quest of the Starhope—The villain was worse than some of the badboy wrestlers on television.

Alien Earth—This new slowed-down life business effected me so much that I began reading in slow-motion. How come you break a story like that into chapters? What's the purpose of chapters—period? They are unnecessary as far as I'm concerned except in long novels, where they afford a breaching-off place for discontinued reading, or when there is a shift between two different scenes of action.

Quit! Logic—Not many yaks but a change of pace.

The Hierophants—Is hiero any relation to Ella?

All God Bema—So that's the way writers work!

On the House—No better, no worse than the rest of the series. The reason that humor is not so effective in your pages is that the reader knows that the stories are supposed to be funny so he sits there saying to the author "Go on, make me laugh. I dare you. Gung ahead."

As a result, the reader doesn't laugh. At least I don't. And from what I read in the letters others don't either. You're going to have to be more subtle about it.

The Concrete Mixer—Ray sure beats me. At the beginning of this tale it looked like it would be just a satire on stiction but as the story progressed it became a satire on everything in general. The evils of our system laid bare. No wonder everybody needs a psychiatrist. Ray is still finding new horizons in plots that have been hidden from the other writers because they're so obvious.

The Lost Race—Another of my favorite types in which Leinster uses his famed overdrive to good advantage. No, the overdrive stories aren't my favorites. The one-word gimmick endings are, though.

The Boy—At last there is some science that I understand. I'm taking it at school now.

The Reader Speaks—When you start talking about camera tricks, you're coming right down my alley. That's my hobby—studying the tricks the pros use. The rest of the stuff you said really sums up the dream business.

I wonder if you could give me a few statistics on the number of stf readers.

Keep these marvelous issues coming thick and fast.—157 N. Euclid Ave., Oak Park, Illinois.

In your query re the St. Clair story, who's Ella—Ella Fitzgerald, mayhap? Anyway, thanks for the epistle. And ultimate means final or last or furthest away. Get it now? Take some time off from your camera studies and dig into the books a bit and you'll pick up such data—worthless but fun.

On the whole, we've enjoyed the letters in this column more than some previous ones. But they're always good fun, frequently spiced with information or some subject of provocative interest. *Salud!*

THE EDITOR.



COMING IN THE NEXT ISSUE **COLD WAR** A Novelet of the *Hogbans* By **HENRY KUTTNER**

SCIENCE FICTION BOOK REVIEW

LEST DARKNESS FALL by L. Sprague de Camp, Prime Press, Philadelphia (\$3.00).

Indubitably the best-known of Mr. de Camp's science fiction novels, this is its second appearance in book form. Henry Holt first published it, back in 1941, and its reappearance is as timely as it is welcome.

Basically it follows the theme employed by Mark Twain in his famed "Connecticut Yankee in King Arthur's Court"—but while its transplanted hero manages to achieve



by virtue of his modern knowledge a high position in the ancient world in which he finds himself, a much higher position than any he has won in the world of today, at no time has Martin Padway the cocksureness of Twain's protagonist.

Far more of a professional than a practical type, Padway faces, when he awakens in the tottering cosmos of sixth-century Rome, not only the problems of a dissolving civilization but the possibility of having any or all of his "inventions" and political setups explode in his face at any time.

He finds himself plagued at various times by Byzantines, barbarians, bishops and beautiful damsels who are afflicted either with crawling things or a highly-developed yen to see drawn and quartered any swain who fails to fit their whims. Padway introduces pinball machines, hard liquor (and is all but executed as a poisoner for same), high-speed communications and gunpowder which fails to explode properly.

To make a living he is forced, by his twentieth-century knowledge, into prominence that entangles him inextricably with the appallingly complex politics and theol-

[Turn page]

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ogy of the day. He lands in prison and escapes by a sort of home-made poison gas, has to fight a duel, to say nothing of a battle with the redoubtable Count Belisarius. He has, in short, the very devil of a time.

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His success or lack of same is the real keynote of Mr. de Camp's story—and one which we shall leave a secret between the author and his readers, of whom there should be many. **LEST DARKNESS FALL** is a big full-course dinner of a book.

SKYLARK OF VALERON by Edward E. Smith, Ph.D., Fantasy Press, Reading, Pennsylvania (\$3.00).

Another chapter in the galactic Odyssey of the Seatons and the Cranes and their enemies, alien and human, the latter as always headed by the ineffably evil Blackie Duquesne. As usual, the Seaton-Crane quarter encounter just about every sort of

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trouble Dr. Smith's highly ingenious mind can cook up for them except domestic grief of any moment.

But even a couple of wedded pairs cooped up in space-ship cabin-fever conditions, which is the chronic state of the Seaton-Crane combine, could scarcely indulge in dish-throwing while they are kept so busily engaged in conquering the appalling conditions which are constantly threatening to trap them from all directions.

This time, thanks to an extended jaunt in the fourth dimension (they should have known better) they have given DuQuesne an even better opportunity than before to make a comeback and if it weren't for some new fourth-dimensional friends coming to their ultimate assistance, heaven only knows what would happen to all of us here on snug little Earth.

Doc Smith in tip-top form—which is enough to set his fans on a sprint for the nearest bookstore.

—THE EDITOR

FIVE FEATURED NOVELETS NEXT ISSUE!



THE LURE OF POLARIS
by WALLACE WEST

THE LAKE OF THE GONE FOREVER
by LEIGH BRACKETT

THE HIBITED MAN
by L. SPRAGUE DE CAMP

COLD WAR
by HENRY KUTTNER

HIGH JACK AND DAME
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The FRYING PAN



A REVIEW OF FANZINES

ONE of the great charms of science fiction fan publications is their almost lunatic unevenness—not only in publication schedules (which are almost never kept) but in the quality of their single issues. Take a brand new fanzine called THE OUTLANDER, for instance. On a neat cover (adorned with a couple of antique redskins in front of a teepee) it announces itself as "official organ of the outlander society in southern california" (the lack of capitals is editor John van covering's idea, not ours).

The contents are fanny. Which is to say they are everything and anything. Never, in our editorial memory, have we seen inconsistency so rife. For instance, in the inevitable opening editorial (look who's talking?) the idea of the society (nebulous) and some of its members are described.

In one case van covering says succinctly, "... Stan Woolston, convulsive glutton, and yours truly, coolly calculating ditto, undoubtedly would be members of the Buddhist or Yoga doctrines except for the inability of one to see his navel and of the other to think that far..."

We think that a very funny and very descriptive bit of prose. It tells its story apace and with a yak. But in a supposedly comical verse corner entitled "Fragments from Foo-Foo" by a pseudonymous someone called "Tasteda Hopps," we find amidst other dolory such a rhinestone in the rough as this—

"Drink to me only with thine eyes
And let me have all the beer..."

Or, if that isn't bad enough, the following—

*"Oh, say can you see
Any tendrils on me?"*

Inconsistency, thy name is fanzine—or perhaps OUTLANDER. What a comedown!

A Mathematical Oddity

PEON, published by Charles Lee Riddle of Alameda, California, comes up with an oddity mathematically speaking) in its latest issue. In giving advice to collectors of magazines such as this one, it blithely states ". . . there are one or two separate rules that may be applied."

After thus luring the would-be collector into its toils with promise of a simple program, it calmly lists rules running from A to G, and totalling a big fat seven. The G, or seventh, is a lulu in its own right, to wit—

"(g) If old mags are dusty (and they usually are) DON'T slap them together or beat them with your hand to remove the dirt. Use a vacuum cleaner. Adroit use of a gum-rubber eraser will take off some of the grime the vacuum cleaner won't touch. But be careful inside!"

It not only implies certain sadism in collectors (something we have long suspected) but suggests a nice discrimination on the part of the vacuum cleaner. Why not take the magazines in question out into the back yard and give them a going over with an old-fashioned rug beater. Then the collector would be able to be careful outside as well as inside.

Thank heavens our only collecting urge has always run toward toy soldiers. When
[Turn page]

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they get dirty you can unload them on the neighborhood children, who have a faculty of disposing of them quickly.

Another Classic

Another involuntary fanzine classic comes out of a newcomer called SHADOWLAND, "perpetrated" by S. J. Martinez of Tulsa, Oklahoma, who has included the blankety-blanket "science" quiz among his features that we have yet to meet.

Among such more or less legitimate questions as "What is the speed of light?" or "What is a tesseract?" we find these following items—

*What is a poltergeist?
Who wrote . . . Dracula?
Who or what was "Apis"?
Who was Anubis?*

All this and "science" too! If this be science, make the most of it, or something. It's too much for us.

Another fascinating facet of fanzina is what we have come to call the "editorial bleats." Some of the things these lads and lassies will admit to pass professional editorial credence. And of them all, Wallace Shore of Billings, Montana, publisher of

FLUB and other tasty items, is tops.

Here is his latest—

As you can see, this is a rather short change issue. Well, I really am sorry for it too. But I feel lucky to have gotten what I got. I had semester exams to start the month with, then an I.Q. test came, and Feb. being a short month helped a little too. I am very sorry.

This issue is a poetry issue, having a great part of the contents being poetry I decided to call it a poetry issue. It contains some poems I got while I was in Helena. Don't blame it on Coswal if they have been published before, because I used them at my own risk.

How do you like the cover?

Don't forget to join or subscribe to GAPA (Galactic Amateur Press Association). Write for a copy of METEOR SHOWER, Coswal will give you one as long as they and his finances hold out, then send your ideas for improvement to either me or him. (Good English, wot?)

No editorial from co-editor Waggoner this month.

More complaints, about myself tho. The typing is pretty bad too, for the first time I am doing by the system they teach in school. I picked a bad time. I'm out of correction fluid! Fewer pages, or did you notice?

But not few enough, we fear. You sound worried, Wallace—could it be a result of the above-mentioned I.Q. test?

—THE EDITOR.

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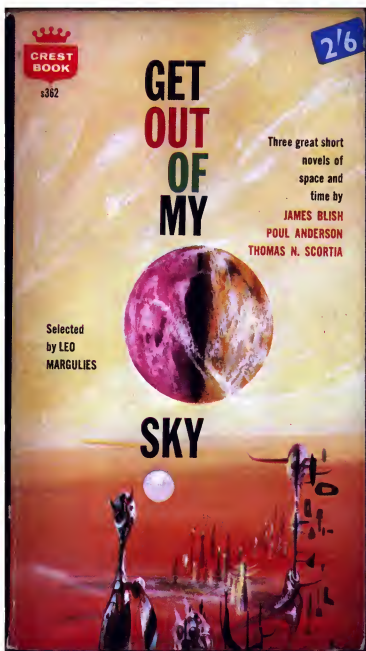
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